GenCore version 5.1.8

OM protein - protein search, using sw model

Run on: May 15, 2006, 09:56:51 ; Search time 91 Seconds
(without alignments)
4194.405 Million cell updates/sec

Title: US-10-635-977-2
Perfect score: 541
Sequence: 1 MASSILKWVVSHQSCSRSSR.....LRGLKTAEGALRPPPGGKGS 541

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 2166443 seqs, 705528306 residues

Word size : 1

Total number of hits satisfying chosen parameters: 2166443

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : UniProt_05.80:*
1: uniprot_sprot:*
2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	390	72.1	747	2	Q5JZ84_HUMAN	Q5jz84 homo sapien
2	49	9.1	518	2	Q8C0V2_MOUSE	Q8c0v2 mus musculu
3	49	9.1	781	2	Q8C0N7_MOUSE	Q8c0n7 mus musculu
4	18	3.3	375	2	Q4V8C1_RAT	Q4v8c1 rattus norv
5	13	2.4	101	2	Q96GG8_HUMAN	Q96gg8 homo sapien
6	13	2.4	261	2	Q58CT2_BOVIN	Q58ct2 bos taurus
7	13	2.4	266	2	Q922T0_MOUSE	Q922t0 mus musculu
8	13	2.4	352	1	TTLL3_HUMAN	Q9y4r7 homo sapien
9	13	2.4	352	2	Q6AWA3_HUMAN	Q6awa3 homo sapien
10	13	2.4	352	2	Q4KMS8_HUMAN	Q4kms8 homo sapien
11	13	2.4	434	2	Q8NDN8_HUMAN	Q8ndn8 homo sapien
12	13	2.4	534	2	Q4RY08_TETNG	Q4ry08 tetraodon n
13	13	2.4	704	2	Q8BV51_MOUSE	Q8bv51 mus musculu
14	13	2.4	744	2	Q9H876_HUMAN	Q9h876 homo sapien
15	12	2.2	572	2	Q7Q156_ANOGA	Q7q156 anopheles g
16	10	1.8	281	2	Q6ZU95_HUMAN	Q6zu95 homo sapien
17	10	1.8	992	2	Q9VM91_DROME	Q9vm91 drosophila
18	9	1.7	228	2	Q8GQ93_PSEAE	Q8gq93 pseudomonas
19	9	1.7	304	2	Q9KW29_XANOR	Q9kw29 xanthomonas
20	9	1.7	304	2	Q9LBJ4_XANOR	Q9lbj4 xanthomonas
21	9	1.7	334	2	Q5H6T4_XANOR	Q5h6t4 xanthomonas
22	9	1.7	376	2	Q4HQR3_CAMUP	Q4hqr3 campylobact
23	9	1.7	502	2	Q688G5_ORYSA	Q688g5 oryza sativ
24	9	1.7	547	1	MCPC_SALTY	Q02755 salmonella
25	9	1.7	547	2	Q57IQ0_SALCH	Q57iq0 salmonella
26	9	1.7	547	2	Q8Z256_SALTI	Q8z256 salmonella
27	9	1.7	547	2	Q5PJM7_SALPA	Q5pjm7 salmonella
28	9	1.7	1147	2	Q4P5Z9_USTMA	Q4p5z9 ustilago ma
29	8	1.5	110	2	Q9PCC1_XYLFA	Q9pcc1 xylella fas
30	8	1.5	119	2	Q5NAM5_ORYSA	Q5nam5 oryza sativ
31	8	1.5	158	2	Q4IT38_AZOVI	Q4it38 azotobacter
32	8	1.5	164	2	O30747_RHOSH	O30747 rhodobacter
33	8	1.5	165	1	GA45A_MOUSE	P48316 mus musculu
34	8	1.5	165	2	Q66HL6_RAT	Q66hl6 rattus norv
35	8	1.5	183	1	NO29_XENLA	O42584 xenopus lae
36	8	1.5	200	2	Q5B3R8_EMENI	Q5b3r8 aspergillus
37	8	1.5	208	2	Q8SBJ8_BPR69	Q8sbj8 bacteriopha
38	8	1.5	220	2	O96030_HUMAN	O96030 homo sapien
39	8	1.5	220	2	Q5T4W7_HUMAN	Q5t4w7 homo sapien
40	8	1.5	228	2	Q6P6A3_HUMAN	Q6p6a3 homo sapien
41	8	1.5	237	2	O95441_HUMAN	O95441 homo sapien
42	8	1.5	239	2	Q746P8_THET2	Q746p8 thermus the
43	8	1.5	240	2	Q53WB6_THET8	Q53wb6 thermus the
44	8	1.5	263	2	Q6MAU7_PARUW	Q6mau7 parachlamyd
45	8	1.5	264	2	O34721_9SPHN	O34721 sphingomona

ALIGNMENTS

RESULT 1
Q5JZ84_HUMAN
ID Q5JZ84_HUMAN PRELIMINARY; PRT; 747 AA.
AC Q5JZ84;
DT 10-MAY-2005 (TrEMBLrel. 30, Created)
DT 10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
DT 10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
DE OTTHUMP00000028514 (Fragment).
GN ORFNames=RP3-355C18.2-002;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Cobley V.;
RL Submitted (MAY-2005) to the EMBL/GenBank/DDBJ databases.
DR EMBL; AL022327; CAI42686.1; -; Genomic_DNA.
DR GO; GO:0004835; F:tubulin-tyrosine ligase activity; IEA.
DR GO; GO:0006464; P:protein modification; IEA.
DR InterPro; IPR004344; Tub_tyr_lygase.
DR Pfam; PF03133; TTL; 1.
FT NON_TER 1 1
SQ SEQUENCE 747 AA; 83854 MW; F90948E159BBE589 CRC64;

Query Match 72.1%; Score 390; DB 2; Length 747;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 390; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy        152 DIVCMDRVEEILELAAADHPLSRDNKWVVQKYIETPLLICDTKFDIRQWFLVTDWNPLTI 211
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        358 DIVCMDRVEEILELAAADHPLSRDNKWVVQKYIETPLLICDTKFDIRQWFLVTDWNPLTI 417

Qy        212 WFYKESYLRFSTQRFSLDKLDSAIHLCNNAVQKYLKNDVGRSPLLPAHNMWTSTRFQEYL 271
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        418 WFYKESYLRFSTQRFSLDKLDSAIHLCNNAVQKYLKNDVGRSPLLPAHNMWTSTRFQEYL 477

Qy        272 QRQGRGAVWGSVIYPSMKKAIAHAMKVAQDHVEPRKNSFELYGADFVLGRDFRPWLIEIN 331
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        478 QRQGRGAVWGSVIYPSMKKAIAHAMKVAQDHVEPRKNSFELYGADFVLGRDFRPWLIEIN 537

Qy        332 SSPTMHPSTPVTAQLCAQVQEDTIKVAVDRSCDIGNFELLWRQPVVEPPPFSGSDLCVAG 391
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        538 SSPTMHPSTPVTAQLCAQVQEDTIKVAVDRSCDIGNFELLWRQPVVEPPPFSGSDLCVAG 597

Qy        392 VSVRRARRQVLPVCNLKASASLLDAQPLKARGPSAMPDPAQGPPSPALQRDLGLKEEKGL 451
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        598 VSVRRARRQVLPVCNLKASASLLDAQPLKARGPSAMPDPAQGPPSPALQRDLGLKEEKGL 657

Qy        452 PLALLAPLRGAAESGGAAQPTRTKAAGKVELPACPCRHVDSQAPNTGVPVAQPAKSWDPN 511
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        658 PLALLAPLRGAAESGGAAQPTRTKAAGKVELPACPCRHVDSQAPNTGVPVAQPAKSWDPN 717
```

```
Qy        512 QLNAHPLEPVLRGLKTAEGALRPPPGGKGS 541
              ||||||||||||||||||||||||||||||
Db        718 QLNAHPLEPVLRGLKTAEGALRPPPGGKGS 747


RESULT 2
Q8C0V2_MOUSE
ID   Q8C0V2_MOUSE PRELIMINARY;      PRT;   518 AA.
AC   Q8C0V2;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Mus musculus adult male testis cDNA, RIKEN full-length enriched
DE   library, clone:4930524K07 product:hypothetical Tubulin-tyrosine ligase
DE   containing protein, full insert sequence.
GN   Name=1700019P01Rik;
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC   Muroidea; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=C57BL/6J; TISSUE=Testis;
RX   MEDLINE=99279253; PubMed=10349636; DOI=10.1016/S0076-6879(99)03004-9;
RA   Carninci P., Hayashizaki Y.;
RT   "High-efficiency full-length cDNA cloning.";
RL   Meth. Enzymol. 303:19-44(1999).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=C57BL/6J; TISSUE=Testis;
RX   MEDLINE=21085660; PubMed=11217851; DOI=10.1038/35055500;
RA   Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,
RA   Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA   Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA   Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA   Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA   Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA   Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA   Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA   Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA   Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA   Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA   Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA   Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA   Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA   Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA   Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
RA   Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
RA   Hayashizaki Y.;
RT   "Functional annotation of a full-length mouse cDNA collection.";
RL   Nature 409:685-690(2001).
RN   [3]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=C57BL/6J; TISSUE=Testis;
RA   The FANTOM Consortium,
RA   the RIKEN Genome Exploration Research Group Phase I & II Team;
RT   "Analysis of the mouse transcriptome based on functional annotation of
RT   60,770 full-length cDNAs.";
RL   Nature 420:563-573(2002).
RN   [4]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=C57BL/6J; TISSUE=Testis;
RX   MEDLINE=20499374; PubMed=11042159; DOI=10.1101/gr.145100;
RA   Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K., Itoh M.,
RA   Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;
RT   "Normalization and subtraction of cap-trapper-selected cDNAs to
RT   prepare full-length cDNA libraries for rapid discovery of new genes.";
RL   Genome Res. 10:1617-1630(2000).
RN   [5]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=C57BL/6J; TISSUE=Testis;
RX   MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;
RA   Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,
RA   Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M.,
RA   Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A.,
RA   Yamamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K.,
RA   Fujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watahiki M.,
RA   Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,
RA   Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;
RT   "RIKEN integrated sequence analysis (RISA) system-384-format
RT   sequencing pipeline with 384 multicapillary sequencer.";
RL   Genome Res. 10:1757-1771(2000).
RN   [6]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=C57BL/6J; TISSUE=Testis;
RA   Adachi J., Aizawa K., Akimura T., Arakawa T., Bono H., Carninci P.,
RA   Fukuda S., Furuno M., Hanagaki T., Hara A., Hashizume W.,
RA   Hayashida K., Hayatsu N., Hiramoto K., Hiraoka T., Hirozane T.,
RA   Hori F., Imotani K., Ishii Y., Itoh M., Kagawa I., Kasukawa T.,
RA   Katoh H., Kawai J., Kojima Y., Kondo S., Konno H., Kouda M., Koya S.,
RA   Kurihara C., Matsuyama T., Miyazaki A., Murata M., Nakamura M.,
RA   Nishi K., Nomura K., Numazaki R., Ohno M., Ohsato N., Okazaki Y.,
RA   Saito R., Saitoh H., Sakai C., Sakai K., Sakazume N., Sano H.,
RA   Sasaki D., Shibata K., Shinagawa A., Shiraki T., Sogabe Y., Tagami M.,
RA   Tagawa A., Takahashi F., Takaku-Akahira S., Takeda Y., Tanaka T.,
RA   Tomaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y.;
RL   Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AK029745; BAC26595.1; -; mRNA.
DR   Ensembl; ENSMUSG00000022388; Mus musculus.
DR   MGI; MGI:1922902; 1700019P01Rik.
DR   GO; GO:0016874; F:ligase activity; IEA.
DR   GO; GO:0004835; F:tubulin-tyrosine ligase activity; IEA.
DR   GO; GO:0006464; P:protein modification; IEA.
DR   InterPro; IPR004344; Tub_tyr_ligase.
DR   Pfam; PF03133; TTL; 1.
KW   Hypothetical protein; Ligase.
SQ   SEQUENCE   518 AA;  59319 MW;  540C045659FAC0D6 CRC64;

  Query Match             9.1%;  Score 49;  DB 2;  Length 518;
  Best Local Similarity   100.0%;  Pred. No. 9.1e-42;
  Matches   49;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        192 DTKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNN 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||
Db        248 DTKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNN 296


RESULT 3
Q8C0N7_MOUSE
ID   Q8C0N7_MOUSE PRELIMINARY;      PRT;   781 AA.
AC   Q8C0N7;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE   Mus musculus adult male testis cDNA, RIKEN full-length enriched
DE   library, clone:4933401B17 product:hypothetical Tubulin-tyrosine ligase
DE   containing protein, full insert sequence.
GN   Name=1700019P01Rik;
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC   Muroidea; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=C57BL/6J; TISSUE=Testis;
RX   MEDLINE=99279253; PubMed=10349636; DOI=10.1016/S0076-6879(99)03004-9;
RA   Carninci P., Hayashizaki Y.;
RT   "High-efficiency full-length cDNA cloning.";
RL   Meth. Enzymol. 303:19-44(1999).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=C57BL/6J; TISSUE=Testis;
RX   MEDLINE=21085660; PubMed=11217851; DOI=10.1038/35055500;
RA   Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,
```

```
RA   Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA   Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA   Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA   Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA   Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA   Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA   Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA   Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA   Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA   Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA   Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA   Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA   Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA   Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA   Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
RA   Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
RA   Hayashizaki Y.;
RT   "Functional annotation of a full-length mouse cDNA collection.";
RL   Nature 409:685-690(2001).
RN   [3]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=C57BL/6J; TISSUE=Testis;
RA   The FANTOM Consortium,
RA   the RIKEN Genome Exploration Research Group Phase I & II Team;
RT   "Analysis of the mouse transcriptome based on functional annotation of
RT   60,770 full-length cDNAs.";
RL   Nature 420:563-573(2002).
RN   [4]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=C57BL/6J; TISSUE=Testis;
RX   MEDLINE=20499374; PubMed=11042159; DOI=10.1101/gr.145100;
RA   Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K., Itoh M.,
RA   Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;
RT   "Normalization and subtraction of cap-trapper-selected cDNAs to
RT   prepare full-length cDNA libraries for rapid discovery of new genes.";
RL   Genome Res. 10:1617-1630(2000).
RN   [5]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=C57BL/6J; TISSUE=Testis;
RX   MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;
RA   Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,
RA   Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M.,
RA   Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A.,
RA   Yamamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K.,
RA   Fujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watahiki M.,
RA   Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,
RA   Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;
RT   "RIKEN integrated sequence analysis (RISA) system-384-format
RT   sequencing pipeline with 384 multicapillary sequencer.";
RL   Genome Res. 10:1757-1771(2000).
RN   [6]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=C57BL/6J; TISSUE=Testis;
RA   Adachi J., Aizawa K., Akimura T., Arakawa T., Bono H., Carninci P.,
RA   Fukuda S., Furuno M., Hanagaki T., Hara A., Hashizume W.,
RA   Hayashida K., Hayatsu N., Hiramoto K., Hiraoka T., Hirozane T.,
RA   Hori F., Imotani K., Ishii Y., Itoh M., Kagawa I., Kasukawa T.,
RA   Katoh H., Kawai J., Kojima Y., Kondo S., Konno H., Kouda M., Koya S.,
RA   Kurihara C., Matsuyama T., Miyazaki A., Murata M., Nakamura M.,
RA   Nishi K., Nomura K., Numazaki R., Ohno M., Ohsato N., Okazaki Y.,
RA   Saito R., Saitoh H., Sakai C., Sakai K., Sakazume N., Sano H.,
RA   Sasaki D., Shibata K., Shinagawa A., Shiraki T., Sogabe Y., Tagami M.,
RA   Tagawa A., Takahashi F., Takaku-Akahira S., Takeda Y., Tanaka T.,
RA   Tomaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y.;
RL   Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AK030151; BAC26811.1; -; mRNA.
DR   Ensembl; ENSMUSG00000022388; Mus musculus.
DR   MGI; MGI:1922902; 1700019P01Rik.
DR   GO; GO:0016874; F:ligase activity; IEA.
DR   GO; GO:0004835; F:tubulin-tyrosine ligase activity; IEA.
DR   GO; GO:0006464; P:protein modification; IEA.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   InterPro; IPR004344; Tub_tyr_ligase.
DR   Pfam; PF03133; TTL; 1.
DR   PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; UNKNOWN_1.
KW   Hypothetical protein; Ligase.
SQ   SEQUENCE   781 AA;  89398 MW;  9E98793C3351C3DE CRC64;

  Query Match             9.1%;  Score 49;  DB 2;  Length 781;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-41;
  Matches   49;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        192 DTKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNN 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||
Db        395 DTKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNN 443


RESULT 4
Q4V8C1_RAT
ID   Q4V8C1_RAT  PRELIMINARY;      PRT;   375 AA.
AC   Q4V8C1;
DT   13-SEP-2005 (TrEMBLrel. 31, Created)
DT   13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT   13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE   RGD1306462_predicted protein.
GN   Name=RGD1306462_predicted;
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC   Muroidea; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=Testis;
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=Testis;
RG   NIH MGC Project;
RL   Submitted (JUN-2005) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; BC097453; AAH97453.1; -; mRNA.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; UNKNOWN_1.
SQ   SEQUENCE   375 AA;  42908 MW;  566FBA119C61BE1F CRC64;

  Query Match             3.3%;  Score 18;  DB 2;  Length 375;
  Best Local Similarity   100.0%;  Pred. No. 2.4e-09;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 ACKVCQAYLGQLEHEDID 76
              ||||||||||||||||||
Db        260 ACKVCQAYLGQLEHEDID 277


RESULT 5
Q96GG8_HUMAN
```

```
ID   Q96GG8_HUMAN PRELIMINARY;      PRT;   101 AA.
AC   Q96GG8;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   TTLL3 protein.
GN   Name=TTLL3;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=Placenta;
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=Placenta;
RA   Strausberg R.;
RL   Submitted (JUN-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; BC009479; AAH09479.1; -; mRNA.
DR   GO; GO:0004835; F:tubulin-tyrosine ligase activity; IEA.
DR   GO; GO:0006464; P:protein modification; IEA.
DR   InterPro; IPR004344; Tub_tyr_lygase.
DR   Pfam; PF03133; TTL; 1.
SQ   SEQUENCE   101 AA;  12054 MW;  8EACD6C1131E0DF9 CRC64;

  Query Match             2.4%;  Score 13;  DB 2;  Length 101;
  Best Local Similarity   100.0%;  Pred. No. 0.00013;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        198 RQWFLVTDWNPLT 210
              |||||||||||||
Db         66 RQWFLVTDWNPLT 78


RESULT 6
Q58CT2_BOVIN
ID   Q58CT2_BOVIN PRELIMINARY;      PRT;   261 AA.
AC   Q58CT2;
DT   10-MAY-2005 (TrEMBLrel. 30, Created)
DT   10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
DT   10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
DE   Tubulin tyrosine ligase-like family, member 3.
GN   Name=TTLL3;
OS   Bos taurus (Bovine).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
OC   Pecora; Bovidae; Bovinae; Bos.
OX   NCBI_TaxID=9913;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=Pooled;
RX   MEDLINE=21180013; PubMed=11282978; DOI=10.1101/gr.170101;
RA   Smith T.P.L., Grosse W.M., Freking B.A., Roberts A.J., Stone R.T.,
RA   Casas E., Wray J.E., White J., Cho J., Fahrenkrug S.C., Bennett G.L.,
RA   Heaton M.P., Laegreid W.W., Rohrer G.A., Chitko-McKown C.G.,
RA   Pertea G., Holt I., Karamycheva S., Liang F., Quackenbush J.,
RA   Keele J.W.;
RT   "Sequence evaluation of four pooled-tissue normalized bovine cDNA
RT   libraries and construction of a gene index for cattle.";
RL   Genome Res. 11:626-630(2001).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=Pooled;
RA   Harhay G.P., Sonstegard T.S., Van Tassell C.P., Clawson M.L.,
RA   Heaton M.P., Keele J.W., Snelling W.M., Weidmann R.T., Smith T.P.L.;
RT   "Sequencing and analysis of Bos taurus full-length insert cDNA
RT   clones.";
RL   Submitted (MAR-2005) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; BT021865; AAX46712.1; -; mRNA.
KW   Ligase.
SQ   SEQUENCE   261 AA;  29911 MW;  5F069784CA162017 CRC64;

  Query Match             2.4%;  Score 13;  DB 2;  Length 261;
  Best Local Similarity   100.0%;  Pred. No. 0.00031;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        198 RQWFLVTDWNPLT 210
              |||||||||||||
Db         68 RQWFLVTDWNPLT 80


RESULT 7
Q922T0_MOUSE
ID   Q922T0_MOUSE PRELIMINARY;      PRT;   266 AA.
AC   Q922T0;
DT   01-DEC-2001 (TrEMBLrel. 19, Created)
DT   01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   4833441J24Rik protein.
GN   Name=4833441J24Rik;
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC   Muroidea; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=FVB/N; TISSUE=Mammary tumor. C3;
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=FVB/N; TISSUE=Mammary tumor. C3;
RG   NIH MGC Project;
```

```
RL   Submitted (APR-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; BC006830; AAH06830.1; -; mRNA.
DR   Ensembl; ENSMUSG00000030276; Mus musculus.
DR   MGI; MGI:2141418; 4833441J24Rik.
DR   GO; GO:0004835; F:tubulin-tyrosine ligase activity; IEA.
DR   GO; GO:0006464; P:protein modification; IEA.
DR   InterPro; IPR004344; Tub_tyr_ligase.
DR   Pfam; PF03133; TTL; 1.
SQ   SEQUENCE   266 AA;  30506 MW;  F8E8FB52FA8B8E98 CRC64;

  Query Match             2.4%;  Score 13;  DB 2;  Length 266;
  Best Local Similarity   100.0%;  Pred. No. 0.00031;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        198 RQWFLVTDWNPLT 210
              |||||||||||||
Db         66 RQWFLVTDWNPLT 78


RESULT 8
TTLL3_HUMAN
ID   TTLL3_HUMAN    STANDARD;      PRT;   352 AA.
AC   Q9Y4R7; Q9UI99;
DT   28-FEB-2003 (Rel. 41, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   13-SEP-2005 (Rel. 48, Last annotation update)
DE   Tubulin tyrosine ligase-like protein 3 (HOTTL).
GN   Name=TTLL3; ORFNames=PRO0207;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
RC   TISSUE=Testis;
RG   The German cDNA consortium;
RL   Submitted (JUN-1999) to the EMBL/GenBank/DDBJ databases.
RN   [2]
RP   NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] OF 61-352.
RC   TISSUE=Fetal liver;
RA   Yu Y., Zhang C., Luo L., Ouyang S., Zhang S., Li W., Wu J., Zhou S.,
RA   Liu M., He F.;
RT   "Functional prediction of the coding sequences of 50 new genes deduced
RT   by analysis of cDNA clones from human fetal liver.";
RL   Submitted (JUL-1998) to the EMBL/GenBank/DDBJ databases.
CC   -!- SIMILARITY: Contains 1 TTL domain.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; AL096725; CAB46375.1; -; mRNA.
DR   EMBL; AF078842; AAF23353.1; -; mRNA.
DR   PIR; T12515; T12515.
DR   Ensembl; ENSG00000156983; Homo sapiens.
DR   HGNC; HGNC:24483; TTLL3.
DR   InterPro; IPR004344; Tub_tyr_ligase.
DR   Pfam; PF03133; TTL; 1.
KW   Ligase; Polymorphism.
FT   DOMAIN        1    293       TTL.
FT   VARIANT     290    290       M -> R (in dbSNP:2290305).
FT                                /FTId=VAR_020207.
FT   CONFLICT     67     67       I -> F (in Ref. 2).
SQ   SEQUENCE   352 AA;  40356 MW;  49FD8E8118C7C20D CRC64;

  Query Match             2.4%;  Score 13;  DB 1;  Length 352;
  Best Local Similarity   100.0%;  Pred. No. 0.0004;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        198 RQWFLVTDWNPLT 210
              |||||||||||||
Db        126 RQWFLVTDWNPLT 138


RESULT 9
Q6AWA3_HUMAN
ID   Q6AWA3_HUMAN PRELIMINARY;      PRT;   352 AA.
AC   Q6AWA3;
DT   25-OCT-2004 (TrEMBLrel. 28, Created)
DT   25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
DT   25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
DE   Hypothetical protein DKFZp686D076.
GN   Name=DKFZp686D076;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=Cervix;
RG   The German cDNA Consortium;
RA   Ansorge W., Krieger S., Regiert T., Rittmueller C., Schwager B.,
RA   Mewes H.W., Weil B., Amid C., Osanger A., Fobo G., Han M., Wiemann S.;
RL   Submitted (SEP-2004) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; BX648175; CAH10554.1; -; mRNA.
DR   GO; GO:0004835; F:tubulin-tyrosine ligase activity; IEA.
DR   GO; GO:0006464; P:protein modification; IEA.
DR   InterPro; IPR004344; Tub_tyr_lygase.
DR   Pfam; PF03133; TTL; 1.
KW   Hypothetical protein.
SQ   SEQUENCE   352 AA;  40257 MW;  49FD8E9CAE1CB20D CRC64;

  Query Match             2.4%;  Score 13;  DB 2;  Length 352;
  Best Local Similarity   100.0%;  Pred. No. 0.0004;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        198 RQWFLVTDWNPLT 210
              |||||||||||||
Db        126 RQWFLVTDWNPLT 138


RESULT 10
Q4KMS8_HUMAN
ID   Q4KMS8_HUMAN PRELIMINARY;      PRT;   352 AA.
AC   Q4KMS8;
DT   13-SEP-2005 (TrEMBLrel. 31, Created)
DT   13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT   13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE   Hypothetical protein (TTLL3 protein).
GN   Name=TTLL3;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=PCR rescued clones;
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
```

```
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=PCR rescued clones;
RG   NIH MGC Project;
RL   Submitted (JUN-2005) to the EMBL/GenBank/DDBJ databases.
RN   [3]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=PCR rescued clones;
RG   NIH MGC Project;
RL   Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; BC098361; AAH98361.1; -; mRNA.
DR   EMBL; BC099735; AAH99735.1; -; mRNA.
KW   Hypothetical protein.
SQ   SEQUENCE   352 AA;  40381 MW;  49EF0C1118C7DD12 CRC64;

  Query Match             2.4%;  Score 13;  DB 2;  Length 352;
  Best Local Similarity   100.0%;  Pred. No. 0.0004;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        198 RQWFLVTDWNPLT 210
              |||||||||||||
Db        126 RQWFLVTDWNPLT 138


RESULT 11
Q8NDN8_HUMAN
ID   Q8NDN8_HUMAN PRELIMINARY;      PRT;   434 AA.
AC   Q8NDN8;
DT   01-OCT-2002 (TrEMBLrel. 22, Created)
DT   01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT   13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE   Hypothetical protein DKFZp586B0320.
GN   Name=DKFZp586B0320;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=Uterus;
RA   Wambutt R., Heubner D., Mewes H.W., Gassenhuber J., Wiemann S.;
RL   Submitted (JUL-2002) to the EMBL/GenBank/DDBJ databases.
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=PCR rescued clones;
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [3]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=PCR rescued clones;
RG   NIH MGC Project;
RL   Submitted (JUN-2005) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AL833939; CAD38794.1; -; mRNA.
DR   EMBL; BC098298; AAH98298.1; -; mRNA.
DR   GO; GO:0004835; F:tubulin-tyrosine ligase activity; IEA.
DR   GO; GO:0006464; P:protein modification; IEA.
DR   InterPro; IPR004344; Tub_tyr_ligase.
DR   Pfam; PF03133; TTL; 1.
KW   Hypothetical protein.
SQ   SEQUENCE   434 AA;  49433 MW;  9E79E6CA08651CA1 CRC64;

  Query Match             2.4%;  Score 13;  DB 2;  Length 434;
  Best Local Similarity   100.0%;  Pred. No. 0.00049;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        198 RQWFLVTDWNPLT 210
              |||||||||||||
Db        126 RQWFLVTDWNPLT 138


RESULT 12
Q4RY08_TETNG
ID   Q4RY08_TETNG PRELIMINARY;      PRT;   534 AA.
AC   Q4RY08;
DT   13-SEP-2005 (TrEMBLrel. 31, Created)
DT   13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT   13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE   Chromosome 11 SCAF14979, whole genome shotgun sequence.
GN   ORFNames=GSTENG00027209001;
OS   Tetraodon nigroviridis (Green puffer).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC   Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
OC   Tetradontoidea; Tetraodontidae; Tetraodon.
OX   NCBI_TaxID=99883;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RA   Jaillon O., Aury J.M., Brunet F., Petit J.L., Stange-Thomann N.,
RA   Mauceli E., Bouneau L., Fischer C., Ozouf-Costaz C., Bernot A.,
RA   Nicaud S., Jaffe D., Fisher S., Lutfalla G., Dossat C., Segurens B.,
RA   Dasilva C., Salanoubat M., Levy M., Boudet N., Castellano S.,
RA   Anthouard V., Jubin C., Castelli V., Katinka M., Vacherie B.,
RA   Biemont C., Skalli Z., Cattolico L., Poulain J., De Berardinis V.,
RA   Cruaud C., Duprat S., Brottier P., Coutanceau J.P., Gouzy J.,
RA   Parra G., Lardier G., Chapple C., McKernan K.J., McEwan P., Bosak S.,
RA   Kellis M., Volff JN., Guigo R., Zody M.C., Mesirov J.,
RA   Lindblad-Toh K., Birren B., Nusbaum C., Kahn D., Robinson-Rechavi M.,
RA   Laudet V., Schachter V., Quetier F., Saurin W., Scarpelli C.,
RA   Wincker P., Lander E.S., Weissenbach J., Roest Crollius H.;
RT   "Genome duplication in the teleost fish Tetraodon nigroviridis reveals
RT   the early vertebrate proto-karyotype.";
RL   Nature 431:946-957(2004).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RG   Genoscope; Whitehead Institute Centre for Genome Research;
RL   Submitted (FEB-2004) to the EMBL/GenBank/DDBJ databases.
CC   -!- CAUTION: The sequence shown here is derived from an
CC       EMBL/GenBank/DDBJ whole genome shotgun (WGS) entry which is
CC       preliminary data.
DR   EMBL; CAAE01014979; CAG06724.1; -; Genomic_DNA.
SQ   SEQUENCE   534 AA;  60130 MW;  62B5BBBB696B662B CRC64;

  Query Match             2.4%;  Score 13;  DB 2;  Length 534;
  Best Local Similarity   100.0%;  Pred. No. 0.00059;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        198 RQWFLVTDWNPLT 210
              |||||||||||||
Db        326 RQWFLVTDWNPLT 338
```

```
RESULT 13
Q8BV51_MOUSE
ID   Q8BV51_MOUSE PRELIMINARY;      PRT;   704 AA.
AC   Q8BV51;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Mus musculus 3 days neonate thymus cDNA, RIKEN full-length enriched
DE   library, clone:A630053H17 product:HOTTL PROTEIN homolog.
GN   Name=4833441J24Rik;
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC   Muroidea; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=C57BL/6J; TISSUE=Thymus;
RX   MEDLINE=99279253; PubMed=10349636; DOI=10.1016/S0076-6879(99)03004-9;
RA   Carninci P., Hayashizaki Y.;
RT   "High-efficiency full-length cDNA cloning.";
RL   Meth. Enzymol. 303:19-44(1999).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=C57BL/6J; TISSUE=Thymus;
RX   MEDLINE=21085660; PubMed=11217851; DOI=10.1038/35055500;
RA   Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,
RA   Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA   Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA   Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA   Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA   Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA   Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA   Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA   Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA   Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA   Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA   Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA   Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA   Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA   Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA   Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
RA   Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
RA   Hayashizaki Y.;
RT   "Functional annotation of a full-length mouse cDNA collection.";
RL   Nature 409:685-690(2001).
RN   [3]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=C57BL/6J; TISSUE=Thymus;
RA   The FANTOM Consortium,
RA   the RIKEN Genome Exploration Research Group Phase I & II Team;
RT   "Analysis of the mouse transcriptome based on functional annotation of
RT   60,770 full-length cDNAs.";
RL   Nature 420:563-573(2002).
RN   [4]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=C57BL/6J; TISSUE=Thymus;
RX   MEDLINE=20499374; PubMed=11042159; DOI=10.1101/gr.145100;
RA   Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K., Itoh M.,
RA   Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;
RT   "Normalization and subtraction of cap-trapper-selected cDNAs to
RT   prepare full-length cDNA libraries for rapid discovery of new genes.";
RL   Genome Res. 10:1617-1630(2000).
RN   [5]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=C57BL/6J; TISSUE=Thymus;
RX   MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;
RA   Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,
RA   Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M.,
RA   Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A.,
RA   Yamamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K.,
RA   Fujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watahiki M.,
RA   Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,
RA   Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;
RT   "RIKEN integrated sequence analysis (RISA) system-384-format
RT   sequencing pipeline with 384 multicapillary sequencer.";
RL   Genome Res. 10:1757-1771(2000).
RN   [6]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=C57BL/6J; TISSUE=Thymus;
RA   Adachi J., Aizawa K., Akimura T., Arakawa T., Bono H., Carninci P.,
RA   Fukuda S., Furuno M., Hanagaki T., Hara A., Hashizume W.,
RA   Hayashida K., Hayatsu N., Hiramoto K., Hiraoka T., Hirozane T.,
RA   Hori F., Imotani K., Ishii Y., Itoh M., Kagawa I., Kasukawa T.,
RA   Katoh H., Kawai J., Kojima Y., Kondo S., Konno H., Kouda M., Koya S.,
RA   Kurihara C., Matsuyama T., Miyazaki A., Murata M., Nakamura M.,
RA   Nishi K., Nomura K., Numazaki R., Ohno M., Ohsato N., Okazaki Y.,
RA   Saito R., Saitoh H., Sakai C., Sakai K., Sakazume N., Sano H.,
RA   Sasaki D., Shibata K., Shinagawa A., Shiraki T., Sogabe Y., Tagami M.,
RA   Tagawa A., Takahashi F., Takaku-Akahira S., Takeda Y., Tanaka T.,
RA   Tomaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y.;
RL   Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AK080321; BAC37878.1; -; mRNA.
DR   Ensembl; ENSMUSG00000030276; Mus musculus.
DR   MGI; MGI:2141418; 4833441J24Rik.
DR   GO; GO:0004835; F:tubulin-tyrosine ligase activity; IEA.
DR   GO; GO:0006464; P:protein modification; IEA.
DR   InterPro; IPR004344; Tub_tyr_ligase.
DR   Pfam; PF03133; TTL; 1.
SQ   SEQUENCE   704 AA;  79080 MW;  3FAD889C1DB5CF7D CRC64;

  Query Match             2.4%;  Score 13;  DB 2;  Length 704;
  Best Local Similarity   100.0%;  Pred. No. 0.00075;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        198 RQWFLVTDWNPLT 210
              |||||||||||||
Db        308 RQWFLVTDWNPLT 320


RESULT 14
Q9H876_HUMAN
ID   Q9H876_HUMAN PRELIMINARY;      PRT;   744 AA.
AC   Q9H876;
DT   01-MAR-2001 (TrEMBLrel. 16, Created)
DT   01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Hypothetical protein FLJ13898.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=Thyroid gland;
RX   PubMed=14702039; DOI=10.1038/ng1285;
RA   Ota T., Suzuki Y., Nishikawa T., Otsuki T., Sugiyama T., Irie R.,
RA   Wakamatsu A., Hayashi K., Sato H., Nagai K., Kimura K., Makita H.,
RA   Sekine M., Obayashi M., Nishi T., Shibahara T., Tanaka T., Ishii S.,
RA   Yamamoto J.-I., Saito K., Kawai Y., Isono Y., Nakamura Y.,
RA   Nagahari K., Murakami K., Yasuda T., Iwayanagi T., Wagatsuma M.,
RA   Shiratori A., Sudo H., Hosoiri T., Kaku Y., Kodaira H., Kondo H.,
RA   Sugawara M., Takahashi M., Kanda K., Yokoi T., Furuya T., Kikkawa E.,
RA   Omura Y., Abe K., Kamihara K., Katsuta N., Sato K., Tanikawa M.,
RA   Yamazaki M., Ninomiya K., Ishibashi T., Yamashita H., Murakawa K.,
RA   Fujimori K., Tanai H., Kimata M., Watanabe M., Hiraoka S., Chiba Y.,
RA   Ishida S., Ono Y., Takiguchi S., Watanabe S., Yosida M., Hotuta T.,
RA   Kusano J., Kanehori K., Takahashi-Fujii A., Hara H., Tanase T.-O.,
RA   Nomura Y., Togiya S., Komai F., Hara R., Takeuchi K., Arita M.,
RA   Imose N., Musashino K., Yuuki H., Oshima A., Sasaki N., Aotsuka S.,
RA   Yoshikawa Y., Matsunawa H., Ichihara T., Shiohata N., Sano S.,
RA   Moriya S., Momiyama H., Satoh N., Takami S., Terashima Y., Suzuki O.,
RA   Nakagawa S., Senoh A., Mizoguchi H., Goto Y., Shimizu F., Wakebe H.,
```

```
RA   Hishigaki H., Watanabe T., Sugiyama A., Takemoto M., Kawakami B.,
RA   Yamazaki M., Watanabe K., Kumagai A., Itakura S., Fukuzumi Y.,
RA   Fujimori Y., Komiyama M., Tashiro H., Tanigami A., Fujiwara T.,
RA   Ono T., Yamada K., Fujii Y., Ozaki K., Hirao M., Ohmori Y.,
RA   Kawabata A., Hikiji T., Kobatake N., Inagaki H., Ikema Y., Okamoto S.,
RA   Okitani R., Kawakami T., Noguchi S., Itoh T., Shigeta K., Senba T.,
RA   Matsumura K., Nakajima Y., Mizuno T., Morinaga M., Sasaki M.,
RA   Togashi T., Oyama M., Hata H., Watanabe M., Komatsu T.,
RA   Mizushima-Sugano J., Satoh T., Shirai Y., Takahashi Y., Nakagawa K.,
RA   Okumura K., Nagase T., Nomura N., Kikuchi H., Masuho Y., Yamashita R.,
RA   Nakai K., Yada T., Nakamura Y., Ohara O., Isogai T., Sugano S.;
RT   "Complete sequencing and characterization of 21,243 full-length human
RT   cDNAs.";
RL   Nat. Genet. 36:40-45(2004).
DR   EMBL; AK023960; BAB14741.1; -; mRNA.
DR   Ensembl; ENSG00000156983; Homo sapiens.
DR   GO; GO:0016874; F:ligase activity; IEA.
DR   GO; GO:0004835; F:tubulin-tyrosine ligase activity; IEA.
DR   GO; GO:0006464; P:protein modification; IEA.
DR   InterPro; IPR004344; Tub_tyr_lygase.
DR   Pfam; PF03133; TTL; 1.
KW   Ligase.
FT   NON_TER     744    744
SQ   SEQUENCE   744 AA;  84683 MW;  DF661753E4AFF0DF CRC64;

  Query Match             2.4%;  Score 13;  DB 2;  Length 744;
  Best Local Similarity   100.0%;  Pred. No. 0.00079;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        198 RQWFLVTDWNPLT 210
              |||||||||||||
Db        338 RQWFLVTDWNPLT 350


RESULT 15
Q7Q156_ANOGA
ID   Q7Q156_ANOGA PRELIMINARY;      PRT;   572 AA.
AC   Q7Q156;
DT   01-MAR-2004 (TrEMBLrel. 26, Created)
DT   01-MAR-2004 (TrEMBLrel. 26, Last sequence update)
DT   01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE   ENSANGP00000022337 (Fragment).
GN   ORFNames=ENSANGG00000019848;
OS   Anopheles gambiae str. PEST.
OC   Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC   Neoptera; Endopterygota; Diptera; Nematocera; Culicoidea; Culicidae;
OC   Anophelinae; Anopheles.
OX   NCBI_TaxID=180454;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=PEST;
RG   The Anopheles gambiae Sequence Committee;
RT   "Anopheles gambiae re-annotation.";
RL   Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=PEST;
RG   The Anopheles gambiae Sequence Committee;
RL   Submitted (APR-2004) to the EMBL/GenBank/DDBJ databases.
CC   -!- CAUTION: The sequence shown here is derived from an
CC       EMBL/GenBank/DDBJ whole genome shotgun (WGS) entry which is
CC       preliminary data.
DR   EMBL; AAAB01008980; EAA13905.2; -; Genomic_DNA.
DR   GO; GO:0004835; F:tubulin-tyrosine ligase activity; IEA.
DR   GO; GO:0006464; P:protein modification; IEA.
DR   InterPro; IPR004344; Tub_tyr_lygase.
DR   Pfam; PF03133; TTL; 1.
FT   NON_TER       1      1
FT   NON_TER     572    572
SQ   SEQUENCE   572 AA;  67109 MW;  8938D9EDD5935071 CRC64;

  Query Match             2.2%;  Score 12;  DB 2;  Length 572;
  Best Local Similarity   100.0%;  Pred. No. 0.007;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        211 IWFYKESYLRFS 222
              ||||||||||||
Db        381 IWFYKESYLRFS 392


Search completed: May 15, 2006, 10:01:02
Job time : 94 secs
```

GenCore version 5.1.8

OM protein - protein search, using sw model

Run on: May 15, 2006, 09:57:43 ; Search time 17 Seconds
(without alignments)
3061.957 Million cell updates/sec

Title: US-10-635-977-2
Perfect score: 541
Sequence: 1 MASSILKWVVSHQSCSRSSR.....LRGLKTAEGALRPPPGGKGS 541

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 283416 seqs, 96216763 residues

Word size : 1

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : PIR_80:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	13	2.4	352	2	T12515	hypothetical prote
2	9	1.7	547	2	AI0990	methyl-accepting c
3	9	1.7	547	2	A47178	methyl-accepting t
4	8	1.5	110	2	D82628	hypothetical prote
5	8	1.5	165	2	B56535	DNA-damage-inducib
6	8	1.5	264	2	JC5640	2-hydroxypent-2,4-
7	8	1.5	269	2	E95999	probable methyl-tr
8	8	1.5	325	2	G87447	conserved hypothet
9	8	1.5	453	2	S67089	hypothetical prote
10	8	1.5	503	2	S21805	portal protein - p
11	8	1.5	513	2	A87324	hypothetical prote
12	8	1.5	533	2	T26860	hypothetical prote
13	8	1.5	557	2	T41495	hypothetical prote
14	8	1.5	830	2	F83288	conserved hypothet
15	7	1.3	74	2	I57554	interleukin-3 rece
16	7	1.3	92	2	S52277	hypothetical prote
17	7	1.3	113	2	A75626	salicylate monooxy
18	7	1.3	124	2	S20545	phosphate acceptor
19	7	1.3	130	1	HSRT2A	histone H2A - rat
20	7	1.3	142	2	JS0510	fusaric acid resis
21	7	1.3	144	2	F97044	hypothetical prote
22	7	1.3	162	1	Z3BPL7	gene 3 protein - p
23	7	1.3	162	1	Z3BP22	gene 3 protein - p
24	7	1.3	169	2	F75253	conserved hypothet
25	7	1.3	173	2	T06250	probable resistanc
26	7	1.3	173	2	AG0687	tail core protein
27	7	1.3	188	2	C87487	ribosome recycling
28	7	1.3	199	2	I49745	HMG box protein -
29	7	1.3	205	2	B95285	conserved hypothet
30	7	1.3	223	2	F98239	hypothetical prote
31	7	1.3	227	2	T07755	disease resistance
32	7	1.3	229	2	F75121	ribose 5-phosphate
33	7	1.3	239	2	AG2643	flagellar L-ring p
34	7	1.3	239	2	G97425	flagellar L-ring p
35	7	1.3	243	2	F69725	tRNA methyltransfe
36	7	1.3	246	2	G83959	tRNA methyltransfe
37	7	1.3	251	2	A70113	methionine aminope
38	7	1.3	253	2	E75493	hypothetical prote
39	7	1.3	258	2	E81395	indole-3-glycerol
40	7	1.3	260	2	I40886	glycine hydroxymet
41	7	1.3	262	2	T05654	hypothetical prote
42	7	1.3	265	1	QRECFH	ferrichrome transp
43	7	1.3	265	2	C90648	hypothetical prote
44	7	1.3	265	2	C85499	hypothetical prote
45	7	1.3	270	2	H83619	hypothetical prote

ALIGNMENTS

RESULT 1
T12515
hypothetical protein DKFZp434B103.1 - human
C;Species: Homo sapiens (man)
C;Date: 23-Jul-1999 #sequence_revision 23-Jul-1999 #text_change 09-Jul-2004
C;Accession: T12515
R;Wambutt, R.; Heubner, D.; Mewes, H.W.; Gassenhuber, J.; Wiemann, S.
submitted to the Protein Sequence Database, June 1999
A;Reference number: Z17524
A;Accession: T12515
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-352 <WAM>
A;Cross-references: UNIPROT:Q9Y4R7; UNIPARC:UPI00001377A6; EMBL:AL096725
A;Experimental source: adult testis; clone DKFZp434B103
C;Genetics:
A;Note: DKFZp434B103.1

Query Match 2.4%; Score 13; DB 2; Length 352;
Best Local Similarity 100.0%; Pred. No. 0.00011;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      198 RQWFLVTDWNPLT 210
            |||||||||||||
Db      126 RQWFLVTDWNPLT 138
```

RESULT 2
AI0990
methyl-accepting chemotaxis citrate transducer [imported] - Salmonella enterica subsp.
C;Species: Salmonella enterica subsp. enterica serovar Typhi
A;Note: this species has also been called Salmonella typhi
C;Date: 09-Nov-2001 #sequence_revision 09-Nov-2001 #text_change 18-Nov-2002
C;Accession: AI0990
R;Parkhill, J.; Dougan, G.; James, K.D.; Thomson, N.R.; Pickard, D.; Wain, J.; Churcher,
th, T.; Connerton, P.; Cronin, A.; Davis, P.; Davies, R.M.; Dowd, L.; White, N.; Farrar
, S.; Moule, S.; O'Gaora, P.
Nature 413, 848-852, 2001
A;Authors: Parry, C.; Quail, M.; Rutherford, K.; Simmonds, M.; Skelton, J.; Stevens, K.
A;Title: Complete genome sequence of a multiple drug resistant Salmonella enterica sero
A;Reference number: AB0502; MUID:21534947; PMID:11677608
A;Accession: AI0990
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-547 <PAR>
A;Cross-references: UNIPARC:UPI000005A77D; GB:AL513382; PIDN:CAD08053.1; PID:g16505033;
C;Genetics:
A;Gene: STY4234
C;Superfamily: methyl-accepting chemotaxis protein

Query Match 1.7%; Score 9; DB 2; Length 547;
Best Local Similarity 100.0%; Pred. No. 1.8;

Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          30 AGSSDLSSR 38
               |||||||||
Db         285 AGSSDLSSR 293
```

RESULT 3
A47178
methyl-accepting transmembrane citrate/phenol chemoreceptor Tcp - Salmonella typhimurium
C;Species: Salmonella typhimurium
C;Date: 21-Sep-1993 #sequence_revision 18-Nov-1994 #text_change 09-Jul-2004
C;Accession: A47178
R;Yamamoto, K.; Imae, Y.
Proc. Natl. Acad. Sci. U.S.A. 90, 217-221, 1993
A;Title: Cloning and characterization of the Salmonella typhimurium-specific chemorecept
A;Reference number: A47178; MUID:93126346; PMID:8419927
A;Accession: A47178
A;Status: preliminary
A;Molecule type: nucleic acid
A;Residues: 1-547 <YAM>
A;Cross-references: UNIPROT:Q02755; UNIPARC:UPI000012EDAA; GB:L06029; NID:g154380; PIDN:
A;Experimental source: ST1
A;Note: sequence extracted from NCBI backbone (NCBIN:122070, NCBIP:122071)
C;Superfamily: methyl-accepting chemotaxis protein
C;Keywords: transmembrane protein

Query Match 1.7%; Score 9; DB 2; Length 547;
Best Local Similarity 100.0%; Pred. No. 1.8;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          30 AGSSDLSSR 38
               |||||||||
Db         285 AGSSDLSSR 293
```

RESULT 4
D82628
hypothetical protein XF1860 [imported] - Xylella fastidiosa (strain 9a5c)
C;Species: Xylella fastidiosa
C;Date: 18-Aug-2000 #sequence_revision 20-Aug-2000 #text_change 09-Jul-2004
C;Accession: D82628
R;anonymous, The Xylella fastidiosa Consortium of the Organization for Nucleotide Sequen
Nature 406, 151-157, 2000
A;Title: The genome sequence of the plant pathogen Xylella fastidiosa.
A;Reference number: A82515; MUID:20365717; PMID:10910347
A;Note: for a complete list of authors see reference number A59328 below
A;Accession: D82628
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-110 <SIM>
A;Cross-references: UNIPROT:Q9PCC1; UNIPARC:UPI00000C2866; GB:AE004007; GB:AE003849; NID
A;Experimental source: strain 9a5c
R;Simpson, A.J.G.; Reinach, F.C.; Arruda, P.; Abreu, F.A.; Acencio, M.; Alvarenga, R.; A
Briones, M.R.S.; Bueno, M.R.P.; Camargo, A.A.; Camargo, L.E.A.; Carraro, D.M.; Carrer, H
as-Neto, E.; Docena, C.; El-Dorry, H.; Facincani, A.P.; Ferreira, A.J.S.
submitted to GenBank, June 2000
A;Authors: Ferreira, V.C.A.; Ferro, J.A.; Fraga, J.S.; Franca, S.C.; Franco, M.C.; Frohm
J.D.; Junqueira, M.L.; Kemper, E.L.; Kitajima, J.P.; Krieger, J.E.; Kuramae, E.E.; Laigr
chado, M.A.; Madeira, A.M.B.N.; Madeira, H.M.F.; Marino, C.L.; Marques, M.V.; Martins, E
A;Authors: Martins, E.M.F.; Matsukuma, A.Y.; Menck, C.F.M.; Miracca, E.C.; Miyaki, C.Y.;
, F.G.; Nunes, L.R.; Oliveira, M.A.; de Oliveira, M.C.; de Oliveira, R.C.; Palmieri, D.A
Rodrigues, V.; Rosa, A.J. de M.; de Rosa Jr., V.E.; de Sa, R.G.; Santelli, R.V.; Sawasak
A;Authors: da Silva, A.C.R.; da Silva, F.R.; da Silva, A.M.; Silva Jr., W.A.; da Silveir
M.; Tsuhako, M.H.; Vallada, H.; Van Sluys, M.A.; Verjovski-Almeida, S.; Vettore, A.L.; Z
A;Reference number: A59328
A;Contents: annotation
C;Genetics:
A;Gene: XF1860

Query Match 1.5%; Score 8; DB 2; Length 110;
Best Local Similarity 100.0%; Pred. No. 4.9;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          438 ALQRDLGL 445
                ||||||||
Db           76 ALQRDLGL 83
```

RESULT 5
B56535
DNA-damage-inducible protein gadd45 - mouse
N;Alternate names: MyD118 protein homolog
C;Species: Mus musculus (house mouse)
C;Date: 19-Oct-1995 #sequence_revision 19-Oct-1995 #text_change 09-Jul-2004
C;Accession: B56535; I49679
R;Zhan, Q.; Lord, K.A.; Alamo Jr., I.; Hollander, M.C.; Carrier, F.; Ron, D.; Kohn, K.W
Mol. Cell. Biol. 14, 2361-2371, 1994
A;Title: The gadd and MyD genes define a novel set of mammalian genes encoding acidic p
A;Reference number: A56535; MUID:94187707; PMID:8139541
A;Accession: B56535
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-165 <ZHA>
A;Cross-references: UNIPROT:P48316; UNIPARC:UPI0000001902; GB:L28177; NID:g456100; PIDN
R;Alimzhanov, M.B.; Kuprash, D.V.; Turetskaya, R.L.; Osipovich, O.A.; Borodulina, O.R.;
Dokl. Akad. Nauk 333, 788-791, 1993
A;Title: Cloning and characterisics of murine genes coding for the human GADD45 analog
A;Reference number: I49679; MUID:94154610; PMID:7509226
A;Accession: I49679
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-165 <RES>
A;Cross-references: UNIPARC:UPI0000001902; EMBL:U00937; NID:g392933; PIDN:AAC27351.1; P
C;Genetics:
A;Gene: Gadd45
A;Introns: 15/2; 49/2; 128/3
C;Superfamily: human DNA-damage-inducible protein gadd45

Query Match 1.5%; Score 8; DB 2; Length 165;
Best Local Similarity 100.0%; Pred. No. 6.9;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          463 AESGGAAQ 470
                ||||||||
Db          111 AESGGAAQ 118
```

RESULT 6
JC5640
2-hydroxypent-2,4-dienoate hydratase (EC 4.2.1.-) - Pseudomonas sp.
C;Species: Pseudomonas sp.
C;Date: 27-Oct-1997 #sequence_revision 27-Oct-1997 #text_change 09-Jul-2004
C;Accession: JC5640
R;Kim, S.; Kweon, O.K.; Kim, Y.; Kim, C.K.; Lee, K.S.; Kim, Y.C.
Biochem. Biophys. Res. Commun. 238, 56-60, 1997
A;Title: Localization and sequence analysis of the phnH gene encoding 2-hydroxypent-2,4
A;Reference number: JC5640; MUID:97445124; PMID:9299451
A;Accession: JC5640
A;Molecule type: DNA
A;Residues: 1-264 <KIM>
A;Cross-references: UNIPROT:O34721; UNIPARC:UPI00000BA64D; GB:U97697; NID:g2316025; PID
A;Experimental source: strain DJ77
C;Comment: This enzyme is responsible for the conversion of 2-hydroxypent-2,4-dienoate
C;Genetics:
A;Gene: phnH
C;Superfamily: 2-hydroxypenta-2,4-dienoate hydratase
C;Keywords: carbon-oxygen lyase; hydro-lyase

Query Match 1.5%; Score 8; DB 2; Length 264;
Best Local Similarity 100.0%; Pred. No. 10;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          459 LRGAAESG 466
                ||||||||
Db           15 LRGAAESG 22
```

RESULT 7
E95999
probable methyl-transferase, S-Adenosyl-L-methionine (SAM)-MTase protein [imported] - Si
C;Species: Sinorhizobium meliloti
C;Date: 24-Aug-2001 #sequence_revision 24-Aug-2001 #text_change 12-Jul-2004
C;Accession: E95999
R;Finan, T.M.; Weidner, S.; Wong, K.; Buhrmester, J.; Chain, P.; Vorholter, F.J.; Hernan
Proc. Natl. Acad. Sci. U.S.A. 98, 9889-9894, 2001
A;Title: The complete sequence of the 1,683-kb pSymB megaplasmid from the N2-fixing endo
A;Reference number: A95842; MUID:21396508; PMID:11481431
A;Accession: E95999
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-269 <KUR>
A;Cross-references: UNIPROT:Q92U77; UNIPARC:UPI00000D4790; GB:AL591985; PIDN:CAC49661.1;
A;Experimental source: strain 1021, megaplasmid pSymB
R;Galibert, F.; Finan, T.M.; Long, S.R.; Puhler, A.; Abola, P.; Ampe, F.; Barloy-Hubler,
pela, D.; Chain, P.; Cowie, A.; Davis, R.W.; Dreano, S.; Federspiel, N.A.; Fisher, R.F.;
L.; Hyman, R.W.; Jones, T.
Science 293, 668-672, 2001
A;Authors: Kahn, D.; Kahn, M.L.; Kalman, S.; Keating, D.H.; Kiss, E.; Komp, C.; Lelaure,
hebault, P.; Vandenbol, M.; Vorholter, F.J.; Weidner, S.; Wells, D.H.; Wong, K.; Yeh, K.
A;Title: The composite genome of the legume symbiont Sinorhizobium meliloti.
A;Reference number: A96039; MUID:21368234; PMID:11474104
A;Contents: annotation
C;Genetics:
A;Gene: SMb21433
A;Genome: plasmid
C;Superfamily: spore germination protein C2

Query Match 1.5%; Score 8; DB 2; Length 269;
Best Local Similarity 100.0%; Pred. No. 10;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 146 AKSRGRDI 153
||||||||
Db 98 AKSRGRDI 105

RESULT 8
G87447
conserved hypothetical protein CC1600 [imported] - Caulobacter crescentus
C;Species: Caulobacter crescentus
C;Date: 20-Apr-2001 #sequence_revision 20-Apr-2001 #text_change 09-Jul-2004
C;Accession: G87447
R;Nierman, W.C.; Feldblyum, T.V.; Paulsen, I.T.; Nelson, K.E.; Eisen, J.; Heidelberg, J.
B.; Laub, M.T.; DeBoy, R.T.; Dodson, R.J.; Durkin, A.S.; Gwinn, M.L.; Haft, D.H.; Kolon
n, J.; Ermolaeva, M.; White, O.; Salzberg, S.L.; Shapiro, L.; Venter, J.C.; Fraser, C.M.
Proc. Natl. Acad. Sci. U.S.A. 98, 4136-4141, 2001
A;Title: Complete Genome Sequence of Caulobacter crescentus.
A;Reference number: A87249; MUID:21173698; PMID:11259647
A;Accession: G87447
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-325 <STO>
A;Cross-references: UNIPROT:Q9A7W9; UNIPARC:UPI00000C7438; GB:AE005673; NID:g13422997; P
C;Genetics:
A;Gene: CC1600

Query Match 1.5%; Score 8; DB 2; Length 325;
Best Local Similarity 100.0%; Pred. No. 12;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 391 GVSVRRAR 398
||||||||
Db 279 GVSVRRAR 286

RESULT 9
S67089
hypothetical protein YOR197w - yeast (Saccharomyces cerevisiae)
N;Alternate names: hypothetical protein O4814
C;Species: Saccharomyces cerevisiae
C;Date: 12-Jul-1996 #sequence_revision 12-Jul-1996 #text_change 31-Dec-2004
C;Accession: S67089
R;Hughes, B.; Pohl, T.M.
submitted to the Protein Sequence Database, July 1996
A;Reference number: S66685
A;Accession: S67089
A;Molecule type: DNA
A;Residues: 1-453 <HUG>
A;Cross-references: UNIPROT:Q08601; UNIPARC:UPI00000698BA; EMBL:Z75105; NID:g1420468; P
A;Experimental source: strain S288C
C;Genetics:
A;Gene: MIPS:YOR197w
A;Cross-references: SGD:S0005723
A;Map position: 15R
C;Superfamily: Metacaspase

Query Match 1.5%; Score 8; DB 2; Length 453;
Best Local Similarity 100.0%; Pred. No. 16;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 77 TSADAVED 84
||||||||
Db 388 TSADAVED 395

RESULT 10
S21805
portal protein - phage SPP1
N;Alternate names: gene 6 protein
C;Species: phage SPP1
C;Date: 22-Nov-1993 #sequence_revision 12-Apr-1996 #text_change 09-Jul-2004
C;Accession: S21805; S24455; T42270; S36725
R;Tavares, P.; Santos, M.A.; Lurz, R.; Morelli, G.; de Lencastre, H.; Trautner, T.A.
J. Mol. Biol. 225, 81-92, 1992
A;Title: Identification of a gene in Bacillus subtilis bacteriophage SPP1 determining ti
A;Reference number: S21805; MUID:92260540; PMID:1583695
A;Accession: S21805
A;Molecule type: DNA
A;Residues: 1-503 <TAV>
A;Cross-references: UNIPROT:P54309; UNIPARC:UPI00001359D0; EMBL:X56064; NID:g15464; PIDN
R;Chai, S.; Bravo, A.; Lueder, G.; Nedlin, A.; Trautner, T.A.; Alonso, J.C.
J. Mol. Biol. 224, 87-102, 1992
A;Title: Molecular analysis of the Bacillus subtilis bacteriophage SPP1 region encompas
A;Reference number: S24450; MUID:92194332; PMID:1548711
A;Accession: S24455
A;Molecule type: DNA
A;Residues: 1-37 <CHA>
A;Cross-references: UNIPARC:UPI000017A851; EMBL:X56064
R;Alonso, J.C.; Luder, G.; Stiege, A.C.; Chai, S.; Weise, F.; Trautner, T.A.
Gene 204, 201-212, 1997
A;Title: The complete nucleotide sequence and functional organization of Bacillus subti
A;Reference number: Z22137; MUID:98094274; PMID:9434185
A;Accession: T42270
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-503 <ALO>
A;Cross-references: UNIPARC:UPI00001359D0; EMBL:X97918; PIDN:CAA66580.1
C;Genetics:
A;Gene: 6

Query Match 1.5%; Score 8; DB 2; Length 503;
Best Local Similarity 100.0%; Pred. No. 18;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 461 GAAESGGA 468
||||||||
Db 492 GAAESGGA 499

RESULT 11
A87324

hypothetical protein CC0603 [imported] - Caulobacter crescentus
C;Species: Caulobacter crescentus
C;Date: 20-Apr-2001 #sequence_revision 20-Apr-2001 #text_change 09-Jul-2004
C;Accession: A87324
R;Nierman, W.C.; Feldblyum, T.V.; Paulsen, I.T.; Nelson, K.E.; Eisen, J.; Heidelberg, J.
B.; Laub, M.T.; DeBoy, R.T.; Dodson, R.J.; Durkin, A.S.; Gwinn, M.L.; Haft, D.H.; Kolon
n, J.; Ermolaeva, M.; White, O.; Salzberg, S.L.; Shapiro, L.; Venter, J.C.; Fraser, C.M.
Proc. Natl. Acad. Sci. U.S.A. 98, 4136-4141, 2001
A;Title: Complete Genome Sequence of Caulobacter crescentus.
A;Reference number: A87249; MUID:21173698; PMID:11259647
A;Accession: A87324
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-513 <STO>
A;Cross-references: UNIPROT:Q9AAJ4; UNIPARC:UPI00000C70DC; GB:AE005673; NID:g13421807; P
C;Genetics:
A;Gene: CC0603

Query Match 1.5%; Score 8; DB 2; Length 513;
Best Local Similarity 100.0%; Pred. No. 18;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 406 NLKASASL 413
||||||||
Db 308 NLKASASL 315

RESULT 12
T26860
hypothetical protein Y43F8B.4 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
C;Accession: T26860
R;Ainscough, R.
submitted to the EMBL Data Library, October 1998
A;Reference number: Z20278
A;Accession: T26860
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-533 <WIL>
A;Cross-references: UNIPROT:Q9XWX4; UNIPARC:UPI000007A7D5; EMBL:AL032623; PIDN:CAA21512.
A;Experimental source: clone Y43F8B
C;Genetics:
A;Gene: CESP:Y43F8B.4
A;Introns: 48/1; 100/3; 201/1; 257/2; 350/3; 483/3

Query Match 1.5%; Score 8; DB 2; Length 533;
Best Local Similarity 100.0%; Pred. No. 19;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 461 GAAESGGA 468
||||||||
Db 447 GAAESGGA 454

RESULT 13
T41495
hypothetical protein SPCC622.15c - fission yeast (Schizosaccharomyces pombe)
C;Species: Schizosaccharomyces pombe
C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-Jul-2004
C;Accession: T41495
R;Seeger, K.; Harris, D.; Lyne, M.; Rajandream, M.A.; Barrell, B.G.
submitted to the EMBL Data Library, October 1998
A;Reference number: Z21998
A;Accession: T41495
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-557 <SEE>
A;Cross-references: UNIPROT:O94602; UNIPARC:UPI000006A248; EMBL:AL033127; PIDN:CAA21871.
A;Experimental source: strain 972h-; cosmid c622
C;Genetics:
A;Gene: SPDB:SPCC622.15c
A;Map position: 3

Query Match 1.5%; Score 8; DB 2; Length 557;
Best Local Similarity 100.0%; Pred. No. 19;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 379 PPPFSGSD 386
||||||||
Db 483 PPPFSGSD 490

RESULT 14
F83288
conserved hypothetical protein PA2858 [imported] - Pseudomonas aeruginosa (strain PAO1)
C;Species: Pseudomonas aeruginosa
C;Date: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 09-Jul-2004
C;Accession: F83288
R;Stover, C.K.; Pham, X.Q.; Erwin, A.L.; Mizoguchi, S.D.; Warrener, P.; Hickey, M.J.; B
adman, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Folger, K.R.; Kas, A.; Larbig, K.; Lim
.; Lory, S.; Olson, M.V.
Nature 406, 959-964, 2000
A;Title: Complete genome sequence of Pseudomonas aeruginosa PA01, an opportunistic path
A;Reference number: A82950; MUID:20437337; PMID:10984043
A;Accession: F83288
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-830 <STO>
A;Cross-references: UNIPROT:Q9HZY6; UNIPARC:UPI00000C5849; GB:AE004712; GB:AE004091; NI
A;Experimental source: strain PAO1
C;Genetics:
A;Gene: PA2858
C;Superfamily: Escherichia coli probable membrane protein ybbP

Query Match 1.5%; Score 8; DB 2; Length 830;
Best Local Similarity 100.0%; Pred. No. 27;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 438 ALQRDLGL 445
||||||||
Db 563 ALQRDLGL 570

RESULT 15
I57554
interleukin-3 receptor beta subunit - mouse (fragment)
C;Species: Mus sp. (mouse)
C;Date: 29-May-1998 #sequence_revision 29-May-1998 #text_change 09-Jul-2004
C;Accession: I57554
R;Hannemann, J.; Hara, T.; Kawai, M.; Miyajima, A.; Ostertag, W.; Stocking, C.
Mol. Cell. Biol. 15, 2402-2412, 1995
A;Title: Sequential mutations in the interleukin-3 (IL3)/granulocyte-macrophage colony-
mediated by a truncated beta C subunit.
A;Reference number: I57554; MUID:95257920; PMID:7739524
A;Accession: I57554
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-74 <RES>
A;Cross-references: UNIPROT:Q64130; UNIPARC:UPI00000E599C; GB:S78451; NID:g998544; PIDN
C;Superfamily: cytokine IL-3/IL-5/GM-CSF receptor common beta chain; cytokine receptor

Query Match 1.3%; Score 7; DB 2; Length 74;
Best Local Similarity 100.0%; Pred. No. 36;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 420 KARGPSA 426
|||||||
Db 16 KARGPSA 22

Search completed: May 15, 2006, 09:58:09
Job time : 19 secs

GenCore version 5.1.8

OM protein - protein search, using sw model

Run on: May 15, 2006, 09:58:33 ; Search time 52 Seconds
(without alignments)
488.448 Million cell updates/sec

Title: US-10-635-977-2
Perfect score: 541
Sequence: 1 MASSILKWVVSHQSCSRSSR.....LRGLKTAEGALRPPPGGKGS 541

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 250354 seqs, 46948837 residues

Word size : 1

Total number of hits satisfying chosen parameters: 250120

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : Published_Applications_AA_New:*
1: /SIDS5/ptodata/1/pubpaa/US08_NEW_PUB.pep1:*
2: /SIDS5/ptodata/1/pubpaa/US06_NEW_PUB.pep:*
3: /SIDS5/ptodata/1/pubpaa/US07_NEW_PUB.pep:*
4: /SIDS5/ptodata/1/pubpaa/US08_NEW_PUB.pep:*
5: /SIDS5/ptodata/1/pubpaa/PCT_NEW_PUB.pep:*
6: /SIDS5/ptodata/1/pubpaa/US09_NEW_PUB.pep:*
7: /SIDS5/ptodata/1/pubpaa/US09_NEW_PUB.pep1:*
8: /SIDS5/ptodata/1/pubpaa/US10_NEW_PUB.pep:*
9: /SIDS5/ptodata/1/pubpaa/US10_NEW_PUB.pep1:*
10: /SIDS5/ptodata/1/pubpaa/US11_NEW_PUB.pep:*
11: /SIDS5/ptodata/1/pubpaa/US11_NEW_PUB.pep1:*
12: /SIDS5/ptodata/1/pubpaa/US60_NEW_PUB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	8	1.5	113	9	US-10-784-004-1238	Sequence 1238, Ap
2	8	1.5	165	10	US-11-297-160-8	Sequence 8, Appli
3	8	1.5	181	11	US-11-175-690-344	Sequence 344, App
4	8	1.5	181	11	US-11-175-690-345	Sequence 345, App
5	8	1.5	181	11	US-11-175-690-346	Sequence 346, App
6	8	1.5	181	11	US-11-175-690-347	Sequence 347, App
7	8	1.5	181	11	US-11-175-690-348	Sequence 348, App
8	8	1.5	181	11	US-11-175-690-349	Sequence 349, App
9	8	1.5	261	11	US-11-096-568A-20320	Sequence 20320, A
10	8	1.5	790	11	US-11-175-690-257	Sequence 257, App
11	8	1.5	790	11	US-11-175-690-258	Sequence 258, App
12	8	1.5	790	11	US-11-175-690-259	Sequence 259, App
13	8	1.5	790	11	US-11-175-690-260	Sequence 260, App
14	8	1.5	790	11	US-11-175-690-261	Sequence 261, App
15	8	1.5	790	11	US-11-175-690-262	Sequence 262, App
16	8	1.5	985	9	US-10-532-482-60	Sequence 60, Appl
17	8	1.5	997	9	US-10-532-482-58	Sequence 58, Appl
18	8	1.5	1004	9	US-10-532-482-59	Sequence 59, Appl
19	8	1.5	1013	9	US-10-532-482-32	Sequence 32, Appl
20	8	1.5	1016	9	US-10-532-482-57	Sequence 57, Appl
21	8	1.5	1032	9	US-10-532-482-56	Sequence 56, Appl
22	7	1.3	99	9	US-10-793-626-884	Sequence 884, App
23	7	1.3	138	11	US-11-087-099-11159	Sequence 11159, A
24	7	1.3	184	11	US-11-074-176-16	Sequence 16, Appl
25	7	1.3	190	11	US-11-063-343-30	Sequence 30, Appl
26	7	1.3	190	11	US-11-074-129-2	Sequence 2, Appli
27	7	1.3	201	9	US-10-821-234-1006	Sequence 1006, Ap
28	7	1.3	225	11	US-11-188-298-9822	Sequence 9822, Ap
29	7	1.3	236	11	US-11-096-568A-23722	Sequence 23722, A
30	7	1.3	250	11	US-11-188-298-17748	Sequence 17748, A
31	7	1.3	258	11	US-11-188-298-9010	Sequence 9010, Ap
32	7	1.3	279	11	US-11-096-568A-23721	Sequence 23721, A
33	7	1.3	282	11	US-11-096-568A-25745	Sequence 25745, A
34	7	1.3	291	11	US-11-188-298-21131	Sequence 21131, A
35	7	1.3	304	9	US-10-467-657-7616	Sequence 7616, Ap
36	7	1.3	309	11	US-11-188-298-7479	Sequence 7479, Ap
37	7	1.3	319	11	US-11-096-568A-23720	Sequence 23720, A
38	7	1.3	328	11	US-11-096-568A-25744	Sequence 25744, A
39	7	1.3	338	11	US-11-096-568A-16519	Sequence 16519, A
40	7	1.3	395	11	US-11-172-740-1006	Sequence 1006, Ap
41	7	1.3	413	11	US-11-096-568A-20771	Sequence 20771, A
42	7	1.3	419	11	US-11-188-298-4398	Sequence 4398, Ap
43	7	1.3	438	11	US-11-096-568A-7464	Sequence 7464, Ap
44	7	1.3	449	11	US-11-087-099-3606	Sequence 3606, Ap
45	7	1.3	450	11	US-11-045-004-2545	Sequence 2545, Ap

ALIGNMENTS

RESULT 1
US-10-784-004-1238
; Sequence 1238, Application US/10784004
; Publication No. US20060084066A1
; GENERAL INFORMATION:
; APPLICANT: Biogen Idec
; TITLE OF INVENTION: Surrogate Markers of Pain
; FILE REFERENCE: 08201.6029-00000
; CURRENT APPLICATION NUMBER: US/10/784,004
; CURRENT FILING DATE: 2004-02-20
; NUMBER OF SEQ ID NOS: 1251
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 1238
; LENGTH: 113
; TYPE: PRT
; ORGANISM: human
US-10-784-004-1238

Query Match 1.5%; Score 8; DB 9; Length 113;
Best Local Similarity 100.0%; Pred. No. 2.6;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 530 GALRPPPG 537
||||||||
Db 65 GALRPPPG 72

RESULT 2
US-11-297-160-8
; Sequence 8, Application US/11297160
; Publication No. US20060088888A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Xin Wei
; APPLICANT: Harris, Curtis C.
; APPLICANT: Fornace Jr., Albert J.
; APPLICANT: Coursen, Jill D.
; APPLICANT: Zhan, Qimin
; APPLICANT: The Government of the United States of America
; APPLICANT: as represented by the Secretary of the
; APPLICANT: Department of Health and Human Services
; TITLE OF INVENTION: Methods for Identifying Inhibitors of GADD45
; TITLE OF INVENTION: Polypeptide Activity, and Inhibitors of Such Activity
; FILE REFERENCE: 015280-367100US
; CURRENT APPLICATION NUMBER: US/11/297,160

; CURRENT FILING DATE: 2005-12-07
; PRIOR APPLICATION NUMBER: US/10/600,158
; PRIOR FILING DATE: 2003-06-20
; PRIOR APPLICATION NUMBER: US/09/534,811
; PRIOR FILING DATE: 2000-03-24
; PRIOR APPLICATION NUMBER: US 60/126,069
; PRIOR FILING DATE: 1999-03-25
; NUMBER OF SEQ ID NOS: 32
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 8
; LENGTH: 165
; TYPE: PRT
; ORGANISM: Mus musculus
; FEATURE:
; OTHER INFORMATION: mouse growth arrest and DNA-damage-inducible
; OTHER INFORMATION: protein (mGADD45)
US-11-297-160-8

Query Match 1.5%; Score 8; DB 10; Length 165;
Best Local Similarity 100.0%; Pred. No. 3.8;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 463 AESGGAAQ 470
||||||||
Db 111 AESGGAAQ 118

RESULT 3
US-11-175-690-344
; Sequence 344, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haseltine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 344
; LENGTH: 181
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-344

Query Match 1.5%; Score 8; DB 11; Length 181;
Best Local Similarity 100.0%; Pred. No. 4.1;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 530 GALRPPPG 537
||||||||
Db 133 GALRPPPG 140

RESULT 4
US-11-175-690-345
; Sequence 345, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haseltine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 345
; LENGTH: 181
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-345

Query Match 1.5%; Score 8; DB 11; Length 181;
Best Local Similarity 100.0%; Pred. No. 4.1;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 530 GALRPPPG 537
||||||||
Db 133 GALRPPPG 140

RESULT 5
US-11-175-690-346
; Sequence 346, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
; APPLICANT: Haseltine et al.
; TITLE OF INVENTION: Albumin Fusion Proteins
; FILE REFERENCE: PF605
; CURRENT APPLICATION NUMBER: US/11/175,690
; CURRENT FILING DATE: 2005-07-07
; PRIOR APPLICATION NUMBER: PCT/US04/001369
; PRIOR FILING DATE: 2004-01-20
; PRIOR APPLICATION NUMBER: US 60/441,305
; PRIOR FILING DATE: 2003-01-22
; PRIOR APPLICATION NUMBER: US 60/453,201
; PRIOR FILING DATE: 2003-03-11
; PRIOR APPLICATION NUMBER: US 60/467,222
; PRIOR FILING DATE: 2003-05-02
; PRIOR APPLICATION NUMBER: US 60/472,816
; PRIOR FILING DATE: 2003-05-23
; PRIOR APPLICATION NUMBER: US 60/476,267
; PRIOR FILING DATE: 2003-06-06
; PRIOR APPLICATION NUMBER: US 60/505,172
; PRIOR FILING DATE: 2003-09-24
; PRIOR APPLICATION NUMBER: US 60/506,746
; PRIOR FILING DATE: 2003-09-30
; NUMBER OF SEQ ID NOS: 568
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 346
; LENGTH: 181
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-175-690-346

```
  Query Match             1.5%;  Score 8;  DB 11;  Length 181;
  Best Local Similarity   100.0%;  Pred. No. 4.1;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        530 GALRPPPG 537
              ||||||||
Db        133 GALRPPPG 140


RESULT 6
US-11-175-690-347
; Sequence 347, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
;  APPLICANT: Haseltine et al.
;  TITLE OF INVENTION: Albumin Fusion Proteins
;  FILE REFERENCE: PF605
;  CURRENT APPLICATION NUMBER: US/11/175,690
;  CURRENT FILING DATE:  2005-07-07
;  PRIOR APPLICATION NUMBER: PCT/US04/001369
;  PRIOR FILING DATE: 2004-01-20
;  PRIOR APPLICATION NUMBER: US 60/441,305
;  PRIOR FILING DATE: 2003-01-22
;  PRIOR APPLICATION NUMBER: US 60/453,201
;  PRIOR FILING DATE: 2003-03-11
;  PRIOR APPLICATION NUMBER: US 60/467,222
;  PRIOR FILING DATE: 2003-05-02
;  PRIOR APPLICATION NUMBER: US 60/472,816
;  PRIOR FILING DATE: 2003-05-23
;  PRIOR APPLICATION NUMBER: US 60/476,267
;  PRIOR FILING DATE: 2003-06-06
;  PRIOR APPLICATION NUMBER: US 60/505,172
;  PRIOR FILING DATE: 2003-09-24
;  PRIOR APPLICATION NUMBER: US 60/506,746
;  PRIOR FILING DATE: 2003-09-30
;  NUMBER OF SEQ ID NOS: 568
;  SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 347
;   LENGTH: 181
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-175-690-347

  Query Match             1.5%;  Score 8;  DB 11;  Length 181;
  Best Local Similarity   100.0%;  Pred. No. 4.1;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        530 GALRPPPG 537
              ||||||||
Db        133 GALRPPPG 140


RESULT 7
US-11-175-690-348
; Sequence 348, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
;  APPLICANT: Haseltine et al.
;  TITLE OF INVENTION: Albumin Fusion Proteins
;  FILE REFERENCE: PF605
;  CURRENT APPLICATION NUMBER: US/11/175,690
;  CURRENT FILING DATE:  2005-07-07
;  PRIOR APPLICATION NUMBER: PCT/US04/001369
;  PRIOR FILING DATE: 2004-01-20
;  PRIOR APPLICATION NUMBER: US 60/441,305
;  PRIOR FILING DATE: 2003-01-22
;  PRIOR APPLICATION NUMBER: US 60/453,201
;  PRIOR FILING DATE: 2003-03-11
;  PRIOR APPLICATION NUMBER: US 60/467,222
;  PRIOR FILING DATE: 2003-05-02
;  PRIOR APPLICATION NUMBER: US 60/472,816
;  PRIOR FILING DATE: 2003-05-23
;  PRIOR APPLICATION NUMBER: US 60/476,267
;  PRIOR FILING DATE: 2003-06-06
;  PRIOR APPLICATION NUMBER: US 60/505,172
;  PRIOR FILING DATE: 2003-09-24
;  PRIOR APPLICATION NUMBER: US 60/506,746
;  PRIOR FILING DATE: 2003-09-30
;  NUMBER OF SEQ ID NOS: 568
;  SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 348
;   LENGTH: 181
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-175-690-348

  Query Match             1.5%;  Score 8;  DB 11;  Length 181;
  Best Local Similarity   100.0%;  Pred. No. 4.1;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        530 GALRPPPG 537
              ||||||||
Db        133 GALRPPPG 140


RESULT 8
US-11-175-690-349
; Sequence 349, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
;  APPLICANT: Haseltine et al.
;  TITLE OF INVENTION: Albumin Fusion Proteins
;  FILE REFERENCE: PF605
;  CURRENT APPLICATION NUMBER: US/11/175,690
;  CURRENT FILING DATE:  2005-07-07
;  PRIOR APPLICATION NUMBER: PCT/US04/001369
;  PRIOR FILING DATE: 2004-01-20
;  PRIOR APPLICATION NUMBER: US 60/441,305
;  PRIOR FILING DATE: 2003-01-22
;  PRIOR APPLICATION NUMBER: US 60/453,201
;  PRIOR FILING DATE: 2003-03-11
;  PRIOR APPLICATION NUMBER: US 60/467,222
;  PRIOR FILING DATE: 2003-05-02
;  PRIOR APPLICATION NUMBER: US 60/472,816
;  PRIOR FILING DATE: 2003-05-23
;  PRIOR APPLICATION NUMBER: US 60/476,267
;  PRIOR FILING DATE: 2003-06-06
;  PRIOR APPLICATION NUMBER: US 60/505,172
;  PRIOR FILING DATE: 2003-09-24
;  PRIOR APPLICATION NUMBER: US 60/506,746
;  PRIOR FILING DATE: 2003-09-30
;  NUMBER OF SEQ ID NOS: 568
;  SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 349
;   LENGTH: 181
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-175-690-349

  Query Match             1.5%;  Score 8;  DB 11;  Length 181;
  Best Local Similarity   100.0%;  Pred. No. 4.1;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        530 GALRPPPG 537
              ||||||||
Db        133 GALRPPPG 140


RESULT 9
US-11-096-568A-20320
; Sequence 20320, Application US/11096568A
; Publication No. US20060048240A1
; GENERAL INFORMATION:
;  APPLICANT: Alexandrov, Nickolai et al.
;  TITLE OF INVENTION: Sequence-Determined DNA Fragments and Corresponding Polypeptides
```

```
;  TITLE OF INVENTION:  Therby
;  FILE REFERENCE: 2750-1592PUS2
;  CURRENT APPLICATION NUMBER: US/11/096,568A
;  CURRENT FILING DATE:  2005-04-01
;  NUMBER OF SEQ ID NOS: 34471
; SEQ ID NO 20320
;   LENGTH: 261
;   TYPE: PRT
;   ORGANISM: Zea mays subsp. mays
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (1)..(261)
;   OTHER INFORMATION: Ceres Seq. ID no. 12381376
US-11-096-568A-20320

  Query Match             1.5%;  Score 8;  DB 11;  Length 261;
  Best Local Similarity   100.0%;  Pred. No. 5.9;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        431 AQGPPSPA 438
              ||||||||
Db        161 AQGPPSPA 168


RESULT 10
US-11-175-690-257
; Sequence 257, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
;  APPLICANT: Haseltine et al.
;  TITLE OF INVENTION: Albumin Fusion Proteins
;  FILE REFERENCE: PF605
;  CURRENT APPLICATION NUMBER: US/11/175,690
;  CURRENT FILING DATE:  2005-07-07
;  PRIOR APPLICATION NUMBER: PCT/US04/001369
;  PRIOR FILING DATE: 2004-01-20
;  PRIOR APPLICATION NUMBER: US 60/441,305
;  PRIOR FILING DATE: 2003-01-22
;  PRIOR APPLICATION NUMBER: US 60/453,201
;  PRIOR FILING DATE: 2003-03-11
;  PRIOR APPLICATION NUMBER: US 60/467,222
;  PRIOR FILING DATE: 2003-05-02
;  PRIOR APPLICATION NUMBER: US 60/472,816
;  PRIOR FILING DATE: 2003-05-23
;  PRIOR APPLICATION NUMBER: US 60/476,267
;  PRIOR FILING DATE: 2003-06-06
;  PRIOR APPLICATION NUMBER: US 60/505,172
;  PRIOR FILING DATE: 2003-09-24
;  PRIOR APPLICATION NUMBER: US 60/506,746
;  PRIOR FILING DATE: 2003-09-30
;  NUMBER OF SEQ ID NOS: 568
;  SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 257
;   LENGTH: 790
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-175-690-257

  Query Match             1.5%;  Score 8;  DB 11;  Length 790;
  Best Local Similarity   100.0%;  Pred. No. 17;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        530 GALRPPPG 537
              ||||||||
Db        742 GALRPPPG 749


RESULT 11
US-11-175-690-258
; Sequence 258, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
;  APPLICANT: Haseltine et al.
;  TITLE OF INVENTION: Albumin Fusion Proteins
;  FILE REFERENCE: PF605
;  CURRENT APPLICATION NUMBER: US/11/175,690
;  CURRENT FILING DATE:  2005-07-07
;  PRIOR APPLICATION NUMBER: PCT/US04/001369
;  PRIOR FILING DATE: 2004-01-20
;  PRIOR APPLICATION NUMBER: US 60/441,305
;  PRIOR FILING DATE: 2003-01-22
;  PRIOR APPLICATION NUMBER: US 60/453,201
;  PRIOR FILING DATE: 2003-03-11
;  PRIOR APPLICATION NUMBER: US 60/467,222
;  PRIOR FILING DATE: 2003-05-02
;  PRIOR APPLICATION NUMBER: US 60/472,816
;  PRIOR FILING DATE: 2003-05-23
;  PRIOR APPLICATION NUMBER: US 60/476,267
;  PRIOR FILING DATE: 2003-06-06
;  PRIOR APPLICATION NUMBER: US 60/505,172
;  PRIOR FILING DATE: 2003-09-24
;  PRIOR APPLICATION NUMBER: US 60/506,746
;  PRIOR FILING DATE: 2003-09-30
;  NUMBER OF SEQ ID NOS: 568
;  SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 258
;   LENGTH: 790
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-175-690-258

  Query Match             1.5%;  Score 8;  DB 11;  Length 790;
  Best Local Similarity   100.0%;  Pred. No. 17;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        530 GALRPPPG 537
              ||||||||
Db        157 GALRPPPG 164


RESULT 12
US-11-175-690-259
; Sequence 259, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
;  APPLICANT: Haseltine et al.
;  TITLE OF INVENTION: Albumin Fusion Proteins
;  FILE REFERENCE: PF605
;  CURRENT APPLICATION NUMBER: US/11/175,690
;  CURRENT FILING DATE:  2005-07-07
;  PRIOR APPLICATION NUMBER: PCT/US04/001369
;  PRIOR FILING DATE: 2004-01-20
;  PRIOR APPLICATION NUMBER: US 60/441,305
;  PRIOR FILING DATE: 2003-01-22
;  PRIOR APPLICATION NUMBER: US 60/453,201
;  PRIOR FILING DATE: 2003-03-11
;  PRIOR APPLICATION NUMBER: US 60/467,222
;  PRIOR FILING DATE: 2003-05-02
;  PRIOR APPLICATION NUMBER: US 60/472,816
;  PRIOR FILING DATE: 2003-05-23
;  PRIOR APPLICATION NUMBER: US 60/476,267
;  PRIOR FILING DATE: 2003-06-06
;  PRIOR APPLICATION NUMBER: US 60/505,172
;  PRIOR FILING DATE: 2003-09-24
;  PRIOR APPLICATION NUMBER: US 60/506,746
;  PRIOR FILING DATE: 2003-09-30
;  NUMBER OF SEQ ID NOS: 568
;  SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 259
;   LENGTH: 790
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-175-690-259

  Query Match             1.5%;  Score 8;  DB 11;  Length 790;
  Best Local Similarity   100.0%;  Pred. No. 17;
```

```
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        530 GALRPPPG 537
              ||||||||
Db        742 GALRPPPG 749


RESULT 13
US-11-175-690-260
; Sequence 260, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
;  APPLICANT: Haseltine et al.
;  TITLE OF INVENTION: Albumin Fusion Proteins
;  FILE REFERENCE: PF605
;  CURRENT APPLICATION NUMBER: US/11/175,690
;  CURRENT FILING DATE:  2005-07-07
;  PRIOR APPLICATION NUMBER: PCT/US04/001369
;  PRIOR FILING DATE: 2004-01-20
;  PRIOR APPLICATION NUMBER: US 60/441,305
;  PRIOR FILING DATE: 2003-01-22
;  PRIOR APPLICATION NUMBER: US 60/453,201
;  PRIOR FILING DATE: 2003-03-11
;  PRIOR APPLICATION NUMBER: US 60/467,222
;  PRIOR FILING DATE: 2003-05-02
;  PRIOR APPLICATION NUMBER: US 60/472,816
;  PRIOR FILING DATE: 2003-05-23
;  PRIOR APPLICATION NUMBER: US 60/476,267
;  PRIOR FILING DATE: 2003-06-06
;  PRIOR APPLICATION NUMBER: US 60/505,172
;  PRIOR FILING DATE: 2003-09-24
;  PRIOR APPLICATION NUMBER: US 60/506,746
;  PRIOR FILING DATE: 2003-09-30
;  NUMBER OF SEQ ID NOS: 568
;  SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 260
;   LENGTH: 790
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-175-690-260

  Query Match             1.5%;  Score 8;  DB 11;  Length 790;
  Best Local Similarity   100.0%;  Pred. No. 17;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        530 GALRPPPG 537
              ||||||||
Db        157 GALRPPPG 164


RESULT 14
US-11-175-690-261
; Sequence 261, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
;  APPLICANT: Haseltine et al.
;  TITLE OF INVENTION: Albumin Fusion Proteins
;  FILE REFERENCE: PF605
;  CURRENT APPLICATION NUMBER: US/11/175,690
;  CURRENT FILING DATE:  2005-07-07
;  PRIOR APPLICATION NUMBER: PCT/US04/001369
;  PRIOR FILING DATE: 2004-01-20
;  PRIOR APPLICATION NUMBER: US 60/441,305
;  PRIOR FILING DATE: 2003-01-22
;  PRIOR APPLICATION NUMBER: US 60/453,201
;  PRIOR FILING DATE: 2003-03-11
;  PRIOR APPLICATION NUMBER: US 60/467,222
;  PRIOR FILING DATE: 2003-05-02
;  PRIOR APPLICATION NUMBER: US 60/472,816
;  PRIOR FILING DATE: 2003-05-23
;  PRIOR APPLICATION NUMBER: US 60/476,267
;  PRIOR FILING DATE: 2003-06-06
;  PRIOR APPLICATION NUMBER: US 60/505,172
;  PRIOR FILING DATE: 2003-09-24
;  PRIOR APPLICATION NUMBER: US 60/506,746
;  PRIOR FILING DATE: 2003-09-30
;  NUMBER OF SEQ ID NOS: 568
;  SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 261
;   LENGTH: 790
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-175-690-261

  Query Match             1.5%;  Score 8;  DB 11;  Length 790;
  Best Local Similarity   100.0%;  Pred. No. 17;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        530 GALRPPPG 537
              ||||||||
Db        742 GALRPPPG 749


RESULT 15
US-11-175-690-262
; Sequence 262, Application US/11175690
; Publication No. US20060014254A1
; GENERAL INFORMATION:
;  APPLICANT: Haseltine et al.
;  TITLE OF INVENTION: Albumin Fusion Proteins
;  FILE REFERENCE: PF605
;  CURRENT APPLICATION NUMBER: US/11/175,690
;  CURRENT FILING DATE:  2005-07-07
;  PRIOR APPLICATION NUMBER: PCT/US04/001369
;  PRIOR FILING DATE: 2004-01-20
;  PRIOR APPLICATION NUMBER: US 60/441,305
;  PRIOR FILING DATE: 2003-01-22
;  PRIOR APPLICATION NUMBER: US 60/453,201
;  PRIOR FILING DATE: 2003-03-11
;  PRIOR APPLICATION NUMBER: US 60/467,222
;  PRIOR FILING DATE: 2003-05-02
;  PRIOR APPLICATION NUMBER: US 60/472,816
;  PRIOR FILING DATE: 2003-05-23
;  PRIOR APPLICATION NUMBER: US 60/476,267
;  PRIOR FILING DATE: 2003-06-06
;  PRIOR APPLICATION NUMBER: US 60/505,172
;  PRIOR FILING DATE: 2003-09-24
;  PRIOR APPLICATION NUMBER: US 60/506,746
;  PRIOR FILING DATE: 2003-09-30
;  NUMBER OF SEQ ID NOS: 568
;  SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 262
;   LENGTH: 790
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-175-690-262

  Query Match             1.5%;  Score 8;  DB 11;  Length 790;
  Best Local Similarity   100.0%;  Pred. No. 17;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        530 GALRPPPG 537
              ||||||||
Db        157 GALRPPPG 164


Search completed: May 15, 2006, 09:59:33
Job time : 53 secs
```

OM protein - protein search, using sw model

Run on: May 15, 2006, 09:58:23 ; Search time 85 Seconds
(without alignments)
2659.361 Million cell updates/sec

Title: US-10-635-977-2
Perfect score: 541
Sequence: 1 MASSILKWVVSHQSCSRSSR.....LRGLKTAEGALRPPPGGKGS 541

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 1867569 seqs, 417829326 residues

Word size : 1

Total number of hits satisfying chosen parameters: 1866650

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : Published_Applications_AA_Main:*
1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
2: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*
3: /cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*
4: /cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep:*
5: /cgn2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep:*
6: /cgn2_6/ptodata/1/pubpaa/US11_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

length % of match

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	541	100.0	541	4	US-10-615-659-2	Sequence 2, Appli
2	541	100.0	541	4	US-10-635-977-2	Sequence 2, Appli
3	514	95.0	541	4	US-10-615-659-13	Sequence 13, Appl
4	514	95.0	541	4	US-10-635-977-13	Sequence 13, Appl
5	293	54.2	293	4	US-10-615-659-14	Sequence 14, Appl
6	293	54.2	293	4	US-10-635-977-14	Sequence 14, Appl
7	242	44.7	242	4	US-10-615-659-4	Sequence 4, Appli
8	242	44.7	242	4	US-10-635-977-4	Sequence 4, Appli
9	49	9.1	49	4	US-10-615-659-21	Sequence 21, Appl
10	49	9.1	49	4	US-10-615-659-22	Sequence 22, Appl
11	49	9.1	49	4	US-10-635-977-21	Sequence 21, Appl
12	49	9.1	49	4	US-10-635-977-22	Sequence 22, Appl
13	42	7.8	42	4	US-10-615-659-24	Sequence 24, Appl
14	42	7.8	42	4	US-10-635-977-24	Sequence 24, Appl
15	26	4.8	26	4	US-10-615-659-23	Sequence 23, Appl
16	26	4.8	26	4	US-10-635-977-23	Sequence 23, Appl
17	23	4.3	23	4	US-10-615-659-19	Sequence 19, Appl
18	23	4.3	23	4	US-10-635-977-19	Sequence 19, Appl
19	17	3.1	17	4	US-10-615-659-25	Sequence 25, Appl
20	17	3.1	17	4	US-10-635-977-25	Sequence 25, Appl
21	16	3.0	16	4	US-10-615-659-46	Sequence 46, Appl
22	16	3.0	16	4	US-10-615-659-47	Sequence 47, Appl
23	16	3.0	16	4	US-10-615-659-48	Sequence 48, Appl
24	16	3.0	16	4	US-10-615-659-49	Sequence 49, Appl
25	16	3.0	16	4	US-10-615-659-50	Sequence 50, Appl
26	16	3.0	16	4	US-10-615-659-51	Sequence 51, Appl
27	16	3.0	16	4	US-10-635-977-46	Sequence 46, Appl
28	16	3.0	16	4	US-10-635-977-47	Sequence 47, Appl
29	16	3.0	16	4	US-10-635-977-48	Sequence 48, Appl
30	16	3.0	16	4	US-10-635-977-49	Sequence 49, Appl
31	16	3.0	16	4	US-10-635-977-50	Sequence 50, Appl
32	16	3.0	16	4	US-10-635-977-51	Sequence 51, Appl
33	14	2.6	14	4	US-10-615-659-38	Sequence 38, Appl
34	14	2.6	14	4	US-10-615-659-39	Sequence 39, Appl
35	14	2.6	14	4	US-10-615-659-40	Sequence 40, Appl
36	14	2.6	14	4	US-10-615-659-41	Sequence 41, Appl
37	14	2.6	14	4	US-10-615-659-42	Sequence 42, Appl
38	14	2.6	14	4	US-10-615-659-43	Sequence 43, Appl
39	14	2.6	14	4	US-10-615-659-44	Sequence 44, Appl
40	14	2.6	14	4	US-10-615-659-45	Sequence 45, Appl
41	14	2.6	14	4	US-10-635-977-38	Sequence 38, Appl
42	14	2.6	14	4	US-10-635-977-39	Sequence 39, Appl
43	14	2.6	14	4	US-10-635-977-40	Sequence 40, Appl
44	14	2.6	14	4	US-10-635-977-41	Sequence 41, Appl
45	14	2.6	14	4	US-10-635-977-42	Sequence 42, Appl

ALIGNMENTS

RESULT 1
US-10-615-659-2
; Sequence 2, Application US/10615659
; Publication No. US20040157234A1
; GENERAL INFORMATION:
; APPLICANT: Bristol-Myers Squibb Company
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING A NOVEL TESTIS-SPECIFIC TUBULIN
; TITLE OF INVENTION: TYROSINE-LIGASE-LIKE PROTEIN, BGS42
; FILE REFERENCE: D0283 NP
; CURRENT APPLICATION NUMBER: US/10/615,659
; CURRENT FILING DATE: 2003-07-09
; PRIOR APPLICATION NUMBER: U.S. 60/394,725
; PRIOR FILING DATE: 2002-07-09
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 2
; LENGTH: 541
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-615-659-2

Query Match 100.0%; Score 541; DB 4; Length 541;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 541; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MASSILKWVVSHQSCSRSSRSKPRDQREEAGSSDLSSRQDAENAEAKLRGLPGQLVDIAC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MASSILKWVVSHQSCSRSSRSKPRDQREEAGSSDLSSRQDAENAEAKLRGLPGQLVDIAC 60

Qy         61 KVCQAYLGQLEHEDIDTSADAVEDLTEAEWEDLTQQYYSLVHGDAFISNSRNYFSQCQAL 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 KVCQAYLGQLEHEDIDTSADAVEDLTEAEWEDLTQQYYSLVHGDAFISNSRNYFSQCQAL 120

Qy        121 LNRITSVNPQTDIDGLRNIWIIKPAAKSRGRDIVCMDRVEEILELAAADHPLSRDNKWVV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LNRITSVNPQTDIDGLRNIWIIKPAAKSRGRDIVCMDRVEEILELAAADHPLSRDNKWVV 180

Qy        181 QKYIETPLLICDTKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNN 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 QKYIETPLLICDTKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNN 240

Qy        241 AVQKYLKNDVGRSPLLPAHNMWTSTRFQEYLQRQGRGAVWGSVIYPSMKKAIAHAMKVAQ 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 AVQKYLKNDVGRSPLLPAHNMWTSTRFQEYLQRQGRGAVWGSVIYPSMKKAIAHAMKVAQ 300

Qy        301 DHVEPRKNSFELYGADFVLGRDFRPWLIEINSSPTMHPSTPVTAQLCAQVQEDTIKVAVD 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DHVEPRKNSFELYGADFVLGRDFRPWLIEINSSPTMHPSTPVTAQLCAQVQEDTIKVAVD 360

Qy        361 RSCDIGNFELLWRQPVVEPPPFSGSDLCVAGVSVRRARRQVLPVCNLKASASLLDAQPLK 420
```

```
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 RSCDIGNFELLWRQPVVEPPPFSGSDLCVAGVSVRRARRQVLPVCNLKASASLLDAQPLK 420

Qy        421 ARGPSAMPDPAQGPPSPALQRDLGLKEEKGLPLALLAPLRGAAESGGAAQPTRTKAAGKV 480
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        421 ARGPSAMPDPAQGPPSPALQRDLGLKEEKGLPLALLAPLRGAAESGGAAQPTRTKAAGKV 480

Qy        481 ELPACPCRHVDSQAPNTGVPVAQPAKSWDPNQLNAHPLEPVLRGLKTAEGALRPPPGGKG 540
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        481 ELPACPCRHVDSQAPNTGVPVAQPAKSWDPNQLNAHPLEPVLRGLKTAEGALRPPPGGKG 540

Qy        541 S 541
                |
Db        541 S 541


RESULT 2
US-10-635-977-2
; Sequence 2, Application US/10635977
; Publication No. US20040171131A1
; GENERAL INFORMATION:
;  APPLICANT: Bristol-Myers Squibb Company
;  TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING A NOVEL TESTIS-SPECIFIC TUBULIN
;  TITLE OF INVENTION:  TYROSINE-LIGASE-LIKE PROTEIN, BGS42
;  FILE REFERENCE: D0283A CIP
;  CURRENT APPLICATION NUMBER: US/10/635,977
;  CURRENT FILING DATE:  2003-08-07
;  PRIOR APPLICATION NUMBER: U.S. 60/394,725
;  PRIOR FILING DATE: 2002-07-09
;  PRIOR APPLICATION NUMBER: U.S.10/615,659
;  PRIOR FILING DATE: 2003-07-09
;  NUMBER OF SEQ ID NOS: 103
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 2
;   LENGTH: 541
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-635-977-2

  Query Match             100.0%;  Score 541;  DB 4;  Length 541;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches  541;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MASSILKWVVSHQSCSRSSRSKPRDQREEAGSSDLSSRQDAENAEAKLRGLPGQLVDIAC 60
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MASSILKWVVSHQSCSRSSRSKPRDQREEAGSSDLSSRQDAENAEAKLRGLPGQLVDIAC 60

Qy         61 KVCQAYLGQLEHEDIDTSADAVEDLTEAEWEDLTQQYYSLVHGDAFISNSRNYFSQCQAL 120
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 KVCQAYLGQLEHEDIDTSADAVEDLTEAEWEDLTQQYYSLVHGDAFISNSRNYFSQCQAL 120

Qy        121 LNRITSVNPQTDIDGLRNIWIIKPAAKSRGRDIVCMDRVEEILELAAADHPLSRDNKWVV 180
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LNRITSVNPQTDIDGLRNIWIIKPAAKSRGRDIVCMDRVEEILELAAADHPLSRDNKWVV 180

Qy        181 QKYIETPLLICDTKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNN 240
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 QKYIETPLLICDTKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNN 240

Qy        241 AVQKYLKNDVGRSPLLPAHNMWTSTRFQEYLQRQGRGAVWGSVIYPSMKKAIAHAMKVAQ 300
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 AVQKYLKNDVGRSPLLPAHNMWTSTRFQEYLQRQGRGAVWGSVIYPSMKKAIAHAMKVAQ 300

Qy        301 DHVEPRKNSFELYGADFVLGRDFRPWLIEINSSPTMHPSTPVTAQLCAQVQEDTIKVAVD 360
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DHVEPRKNSFELYGADFVLGRDFRPWLIEINSSPTMHPSTPVTAQLCAQVQEDTIKVAVD 360

Qy        361 RSCDIGNFELLWRQPVVEPPPFSGSDLCVAGVSVRRARRQVLPVCNLKASASLLDAQPLK 420
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 RSCDIGNFELLWRQPVVEPPPFSGSDLCVAGVSVRRARRQVLPVCNLKASASLLDAQPLK 420

Qy        421 ARGPSAMPDPAQGPPSPALQRDLGLKEEKGLPLALLAPLRGAAESGGAAQPTRTKAAGKV 480
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        421 ARGPSAMPDPAQGPPSPALQRDLGLKEEKGLPLALLAPLRGAAESGGAAQPTRTKAAGKV 480

Qy        481 ELPACPCRHVDSQAPNTGVPVAQPAKSWDPNQLNAHPLEPVLRGLKTAEGALRPPPGGKG 540
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        481 ELPACPCRHVDSQAPNTGVPVAQPAKSWDPNQLNAHPLEPVLRGLKTAEGALRPPPGGKG 540

Qy        541 S 541
                |
Db        541 S 541


RESULT 3
US-10-615-659-13
; Sequence 13, Application US/10615659
; Publication No. US20040157234A1
; GENERAL INFORMATION:
;  APPLICANT: Bristol-Myers Squibb Company
;  TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING A NOVEL TESTIS-SPECIFIC TUBULIN
;  TITLE OF INVENTION:  TYROSINE-LIGASE-LIKE PROTEIN, BGS42
;  FILE REFERENCE: D0283 NP
;  CURRENT APPLICATION NUMBER: US/10/615,659
;  CURRENT FILING DATE:  2003-07-09
;  PRIOR APPLICATION NUMBER: U.S. 60/394,725
;  PRIOR FILING DATE: 2002-07-09
;  NUMBER OF SEQ ID NOS: 102
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 13
;   LENGTH: 541
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-615-659-13

  Query Match             95.0%;  Score 514;  DB 4;  Length 541;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches  514;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MASSILKWVVSHQSCSRSSRSKPRDQREEAGSSDLSSRQDAENAEAKLRGLPGQLVDIAC 60
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MASSILKWVVSHQSCSRSSRSKPRDQREEAGSSDLSSRQDAENAEAKLRGLPGQLVDIAC 60

Qy         61 KVCQAYLGQLEHEDIDTSADAVEDLTEAEWEDLTQQYYSLVHGDAFISNSRNYFSQCQAL 120
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 KVCQAYLGQLEHEDIDTSADAVEDLTEAEWEDLTQQYYSLVHGDAFISNSRNYFSQCQAL 120

Qy        121 LNRITSVNPQTDIDGLRNIWIIKPAAKSRGRDIVCMDRVEEILELAAADHPLSRDNKWVV 180
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LNRITSVNPQTDIDGLRNIWIIKPAAKSRGRDIVCMDRVEEILELAAADHPLSRDNKWVV 180

Qy        181 QKYIETPLLICDTKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNN 240
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 QKYIETPLLICDTKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNN 240

Qy        241 AVQKYLKNDVGRSPLLPAHNMWTSTRFQEYLQRQGRGAVWGSVIYPSMKKAIAHAMKVAQ 300
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 AVQKYLKNDVGRSPLLPAHNMWTSTRFQEYLQRQGRGAVWGSVIYPSMKKAIAHAMKVAQ 300

Qy        301 DHVEPRKNSFELYGADFVLGRDFRPWLIEINSSPTMHPSTPVTAQLCAQVQEDTIKVAVD 360
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DHVEPRKNSFELYGADFVLGRDFRPWLIEINSSPTMHPSTPVTAQLCAQVQEDTIKVAVD 360

Qy        361 RSCDIGNFELLWRQPVVEPPPFSGSDLCVAGVSVRRARRQVLPVCNLKASASLLDAQPLK 420
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 RSCDIGNFELLWRQPVVEPPPFSGSDLCVAGVSVRRARRQVLPVCNLKASASLLDAQPLK 420

Qy        421 ARGPSAMPDPAQGPPSPALQRDLGLKEEKGLPLALLAPLRGAAESGGAAQPTRTKAAGKV 480
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        421 ARGPSAMPDPAQGPPSPALQRDLGLKEEKGLPLALLAPLRGAAESGGAAQPTRTKAAGKV 480

Qy        481 ELPACPCRHVDSQAPNTGVPVAQPAKSWDPNQLN 514
                ||||||||||||||||||||||||||||||||||
Db        481 ELPACPCRHVDSQAPNTGVPVAQPAKSWDPNQLN 514
```

```
RESULT 4
US-10-635-977-13
; Sequence 13, Application US/10635977
; Publication No. US20040171131A1
; GENERAL INFORMATION:
;  APPLICANT: Bristol-Myers Squibb Company
;  TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING A NOVEL TESTIS-SPECIFIC TUBULIN
;  TITLE OF INVENTION:  TYROSINE-LIGASE-LIKE PROTEIN, BGS42
;  FILE REFERENCE: D0283A CIP
;  CURRENT APPLICATION NUMBER: US/10/635,977
;  CURRENT FILING DATE:  2003-08-07
;  PRIOR APPLICATION NUMBER: U.S. 60/394,725
;  PRIOR FILING DATE: 2002-07-09
;  PRIOR APPLICATION NUMBER: U.S.10/615,659
;  PRIOR FILING DATE: 2003-07-09
;  NUMBER OF SEQ ID NOS: 103
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 13
;   LENGTH: 541
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-635-977-13

  Query Match             95.0%;  Score 514;  DB 4;  Length 541;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches  514;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MASSILKWVVSHQSCSRSSRSKPRDQREEAGSSDLSSRQDAENAEAKLRGLPGQLVDIAC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MASSILKWVVSHQSCSRSSRSKPRDQREEAGSSDLSSRQDAENAEAKLRGLPGQLVDIAC 60

Qy         61 KVCQAYLGQLEHEDIDTSADAVEDLTEAEWEDLTQQYYSLVHGDAFISNSRNYFSQCQAL 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 KVCQAYLGQLEHEDIDTSADAVEDLTEAEWEDLTQQYYSLVHGDAFISNSRNYFSQCQAL 120

Qy        121 LNRITSVNPQTDIDGLRNIWIIKPAAKSRGRDIVCMDRVEEILELAAADHPLSRDNKWVV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LNRITSVNPQTDIDGLRNIWIIKPAAKSRGRDIVCMDRVEEILELAAADHPLSRDNKWVV 180

Qy        181 QKYIETPLLICDTKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNN 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 QKYIETPLLICDTKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNN 240

Qy        241 AVQKYLKNDVGRSPLLPAHNMWTSTRFQEYLQRQGRGAVWGSVIYPSMKKAIAHAMKVAQ 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 AVQKYLKNDVGRSPLLPAHNMWTSTRFQEYLQRQGRGAVWGSVIYPSMKKAIAHAMKVAQ 300

Qy        301 DHVEPRKNSFELYGADFVLGRDFRPWLIEINSSPTMHPSTPVTAQLCAQVQEDTIKVAVD 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DHVEPRKNSFELYGADFVLGRDFRPWLIEINSSPTMHPSTPVTAQLCAQVQEDTIKVAVD 360

Qy        361 RSCDIGNFELLWRQPVVEPPPFSGSDLCVAGVSVRRARRQVLPVCNLKASASLLDAQPLK 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 RSCDIGNFELLWRQPVVEPPPFSGSDLCVAGVSVRRARRQVLPVCNLKASASLLDAQPLK 420

Qy        421 ARGPSAMPDPAQGPPSPALQRDLGLKEEKGLPLALLAPLRGAAESGGAAQPTRTKAAGKV 480
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        421 ARGPSAMPDPAQGPPSPALQRDLGLKEEKGLPLALLAPLRGAAESGGAAQPTRTKAAGKV 480

Qy        481 ELPACPCRHVDSQAPNTGVPVAQPAKSWDPNQLN 514
              ||||||||||||||||||||||||||||||||||
Db        481 ELPACPCRHVDSQAPNTGVPVAQPAKSWDPNQLN 514


RESULT 5
US-10-615-659-14
; Sequence 14, Application US/10615659
; Publication No. US20040157234A1
; GENERAL INFORMATION:
;  APPLICANT: Bristol-Myers Squibb Company
;  TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING A NOVEL TESTIS-SPECIFIC TUBULIN
;  TITLE OF INVENTION:  TYROSINE-LIGASE-LIKE PROTEIN, BGS42
;  FILE REFERENCE: D0283 NP
;  CURRENT APPLICATION NUMBER: US/10/615,659
;  CURRENT FILING DATE:  2003-07-09
;  PRIOR APPLICATION NUMBER: U.S. 60/394,725
;  PRIOR FILING DATE: 2002-07-09
;  NUMBER OF SEQ ID NOS: 102
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 14
;   LENGTH: 293
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-615-659-14

  Query Match             54.2%;  Score 293;  DB 4;  Length 293;
  Best Local Similarity   100.0%;  Pred. No. 6.4e-287;
  Matches  293;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         73 EDIDTSADAVEDLTEAEWEDLTQQYYSLVHGDAFISNSRNYFSQCQALLNRITSVNPQTD 132
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 EDIDTSADAVEDLTEAEWEDLTQQYYSLVHGDAFISNSRNYFSQCQALLNRITSVNPQTD 60

Qy        133 IDGLRNIWIIKPAAKSRGRDIVCMDRVEEILELAAADHPLSRDNKWVVQKYIETPLLICD 192
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 IDGLRNIWIIKPAAKSRGRDIVCMDRVEEILELAAADHPLSRDNKWVVQKYIETPLLICD 120

Qy        193 TKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNNAVQKYLKNDVGR 252
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 TKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNNAVQKYLKNDVGR 180

Qy        253 SPLLPAHNMWTSTRFQEYLQRQGRGAVWGSVIYPSMKKAIAHAMKVAQDHVEPRKNSFEL 312
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SPLLPAHNMWTSTRFQEYLQRQGRGAVWGSVIYPSMKKAIAHAMKVAQDHVEPRKNSFEL 240

Qy        313 YGADFVLGRDFRPWLIEINSSPTMHPSTPVTAQLCAQVQEDTIKVAVDRSCDI 365
              |||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 YGADFVLGRDFRPWLIEINSSPTMHPSTPVTAQLCAQVQEDTIKVAVDRSCDI 293


RESULT 6
US-10-635-977-14
; Sequence 14, Application US/10635977
; Publication No. US20040171131A1
; GENERAL INFORMATION:
;  APPLICANT: Bristol-Myers Squibb Company
;  TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING A NOVEL TESTIS-SPECIFIC TUBULIN
;  TITLE OF INVENTION:  TYROSINE-LIGASE-LIKE PROTEIN, BGS42
;  FILE REFERENCE: D0283A CIP
;  CURRENT APPLICATION NUMBER: US/10/635,977
;  CURRENT FILING DATE:  2003-08-07
;  PRIOR APPLICATION NUMBER: U.S. 60/394,725
;  PRIOR FILING DATE: 2002-07-09
;  PRIOR APPLICATION NUMBER: U.S.10/615,659
;  PRIOR FILING DATE: 2003-07-09
;  NUMBER OF SEQ ID NOS: 103
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 14
;   LENGTH: 293
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-635-977-14

  Query Match             54.2%;  Score 293;  DB 4;  Length 293;
  Best Local Similarity   100.0%;  Pred. No. 6.4e-287;
  Matches  293;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         73 EDIDTSADAVEDLTEAEWEDLTQQYYSLVHGDAFISNSRNYFSQCQALLNRITSVNPQTD 132
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 EDIDTSADAVEDLTEAEWEDLTQQYYSLVHGDAFISNSRNYFSQCQALLNRITSVNPQTD 60

Qy        133 IDGLRNIWIIKPAAKSRGRDIVCMDRVEEILELAAADHPLSRDNKWVVQKYIETPLLICD 192
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 IDGLRNIWIIKPAAKSRGRDIVCMDRVEEILELAAADHPLSRDNKWVVQKYIETPLLICD 120

Qy        193 TKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNNAVQKYLKNDVGR 252
```

```
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 TKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNNAVQKYLKNDVGR 180

Qy        253 SPLLPAHNMWTSTRFQEYLQRQGRGAVWGSVIYPSMKKAIAHAMKVAQDHVEPRKNSFEL 312
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SPLLPAHNMWTSTRFQEYLQRQGRGAVWGSVIYPSMKKAIAHAMKVAQDHVEPRKNSFEL 240

Qy        313 YGADFVLGRDFRPWLIEINSSPTMHPSTPVTAQLCAQVQEDTIKVAVDRSCDI 365
                ||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 YGADFVLGRDFRPWLIEINSSPTMHPSTPVTAQLCAQVQEDTIKVAVDRSCDI 293


RESULT 7
US-10-615-659-4
; Sequence 4, Application US/10615659
; Publication No. US20040157234A1
; GENERAL INFORMATION:
;  APPLICANT: Bristol-Myers Squibb Company
;  TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING A NOVEL TESTIS-SPECIFIC TUBULIN
;  TITLE OF INVENTION:  TYROSINE-LIGASE-LIKE PROTEIN, BGS42
;  FILE REFERENCE: D0283 NP
;  CURRENT APPLICATION NUMBER: US/10/615,659
;  CURRENT FILING DATE:  2003-07-09
;  PRIOR APPLICATION NUMBER: U.S. 60/394,725
;  PRIOR FILING DATE: 2002-07-09
;  NUMBER OF SEQ ID NOS: 102
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 4
;   LENGTH: 242
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-615-659-4

  Query Match             44.7%;  Score 242;  DB 4;  Length 242;
  Best Local Similarity   100.0%;  Pred. No. 1.9e-235;
  Matches  242;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        133 IDGLRNIWIIKPAAKSRGRDIVCMDRVEEILELAAADHPLSRDNKWVVQKYIETPLLICD 192
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 IDGLRNIWIIKPAAKSRGRDIVCMDRVEEILELAAADHPLSRDNKWVVQKYIETPLLICD 60

Qy        193 TKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNNAVQKYLKNDVGR 252
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 TKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNNAVQKYLKNDVGR 120

Qy        253 SPLLPAHNMWTSTRFQEYLQRQGRGAVWGSVIYPSMKKAIAHAMKVAQDHVEPRKNSFEL 312
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 SPLLPAHNMWTSTRFQEYLQRQGRGAVWGSVIYPSMKKAIAHAMKVAQDHVEPRKNSFEL 180

Qy        313 YGADFVLGRDFRPWLIEINSSPTMHPSTPVTAQLCAQVQEDTIKVAVDRSCDIGNFELLW 372
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 YGADFVLGRDFRPWLIEINSSPTMHPSTPVTAQLCAQVQEDTIKVAVDRSCDIGNFELLW 240

Qy        373 RQ 374
                ||
Db        241 RQ 242


RESULT 8
US-10-635-977-4
; Sequence 4, Application US/10635977
; Publication No. US20040171131A1
; GENERAL INFORMATION:
;  APPLICANT: Bristol-Myers Squibb Company
;  TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING A NOVEL TESTIS-SPECIFIC TUBULIN
;  TITLE OF INVENTION:  TYROSINE-LIGASE-LIKE PROTEIN, BGS42
;  FILE REFERENCE: D0283A CIP
;  CURRENT APPLICATION NUMBER: US/10/635,977
;  CURRENT FILING DATE:  2003-08-07
;  PRIOR APPLICATION NUMBER: U.S. 60/394,725
;  PRIOR FILING DATE: 2002-07-09
;  PRIOR APPLICATION NUMBER: U.S.10/615,659
;  PRIOR FILING DATE: 2003-07-09
;  NUMBER OF SEQ ID NOS: 103
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 4
;   LENGTH: 242
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-635-977-4

  Query Match             44.7%;  Score 242;  DB 4;  Length 242;
  Best Local Similarity   100.0%;  Pred. No. 1.9e-235;
  Matches  242;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        133 IDGLRNIWIIKPAAKSRGRDIVCMDRVEEILELAAADHPLSRDNKWVVQKYIETPLLICD 192
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 IDGLRNIWIIKPAAKSRGRDIVCMDRVEEILELAAADHPLSRDNKWVVQKYIETPLLICD 60

Qy        193 TKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNNAVQKYLKNDVGR 252
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 TKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNNAVQKYLKNDVGR 120

Qy        253 SPLLPAHNMWTSTRFQEYLQRQGRGAVWGSVIYPSMKKAIAHAMKVAQDHVEPRKNSFEL 312
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 SPLLPAHNMWTSTRFQEYLQRQGRGAVWGSVIYPSMKKAIAHAMKVAQDHVEPRKNSFEL 180

Qy        313 YGADFVLGRDFRPWLIEINSSPTMHPSTPVTAQLCAQVQEDTIKVAVDRSCDIGNFELLW 372
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 YGADFVLGRDFRPWLIEINSSPTMHPSTPVTAQLCAQVQEDTIKVAVDRSCDIGNFELLW 240

Qy        373 RQ 374
                ||
Db        241 RQ 242


RESULT 9
US-10-615-659-21
; Sequence 21, Application US/10615659
; Publication No. US20040157234A1
; GENERAL INFORMATION:
;  APPLICANT: Bristol-Myers Squibb Company
;  TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING A NOVEL TESTIS-SPECIFIC TUBULIN
;  TITLE OF INVENTION:  TYROSINE-LIGASE-LIKE PROTEIN, BGS42
;  FILE REFERENCE: D0283 NP
;  CURRENT APPLICATION NUMBER: US/10/615,659
;  CURRENT FILING DATE:  2003-07-09
;  PRIOR APPLICATION NUMBER: U.S. 60/394,725
;  PRIOR FILING DATE: 2002-07-09
;  NUMBER OF SEQ ID NOS: 102
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 21
;   LENGTH: 49
;   TYPE: PRT
;   ORGANISM: Mus musculus
US-10-615-659-21

  Query Match              9.1%;  Score 49;  DB 4;  Length 49;
  Best Local Similarity   100.0%;  Pred. No. 4.8e-41;
  Matches   49;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        192 DTKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNN 240
                |||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 DTKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNN 49


RESULT 10
US-10-615-659-22
; Sequence 22, Application US/10615659
; Publication No. US20040157234A1
; GENERAL INFORMATION:
;  APPLICANT: Bristol-Myers Squibb Company
;  TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING A NOVEL TESTIS-SPECIFIC TUBULIN
;  TITLE OF INVENTION:  TYROSINE-LIGASE-LIKE PROTEIN, BGS42
;  FILE REFERENCE: D0283 NP
;  CURRENT APPLICATION NUMBER: US/10/615,659
```

```
;  CURRENT FILING DATE:  2003-07-09
;  PRIOR APPLICATION NUMBER: U.S. 60/394,725
;  PRIOR FILING DATE: 2002-07-09
;  NUMBER OF SEQ ID NOS: 102
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 22
;   LENGTH: 49
;   TYPE: PRT
;   ORGANISM: Rattus norvegicus
US-10-615-659-22

  Query Match             9.1%;  Score 49;  DB 4;  Length 49;
  Best Local Similarity   100.0%;  Pred. No. 4.8e-41;
  Matches   49;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        192 DTKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNN 240
              |||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 DTKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNN 49


RESULT 11
US-10-635-977-21
; Sequence 21, Application US/10635977
; Publication No. US20040171131A1
; GENERAL INFORMATION:
;  APPLICANT: Bristol-Myers Squibb Company
;  TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING A NOVEL TESTIS-SPECIFIC TUBULIN
;  TITLE OF INVENTION:  TYROSINE-LIGASE-LIKE PROTEIN, BGS42
;  FILE REFERENCE: D0283A CIP
;  CURRENT APPLICATION NUMBER: US/10/635,977
;  CURRENT FILING DATE:  2003-08-07
;  PRIOR APPLICATION NUMBER: U.S. 60/394,725
;  PRIOR FILING DATE: 2002-07-09
;  PRIOR APPLICATION NUMBER: U.S.10/615,659
;  PRIOR FILING DATE: 2003-07-09
;  NUMBER OF SEQ ID NOS: 103
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 21
;   LENGTH: 49
;   TYPE: PRT
;   ORGANISM: Mus musculus
US-10-635-977-21

  Query Match             9.1%;  Score 49;  DB 4;  Length 49;
  Best Local Similarity   100.0%;  Pred. No. 4.8e-41;
  Matches   49;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        192 DTKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNN 240
              |||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 DTKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNN 49


RESULT 12
US-10-635-977-22
; Sequence 22, Application US/10635977
; Publication No. US20040171131A1
; GENERAL INFORMATION:
;  APPLICANT: Bristol-Myers Squibb Company
;  TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING A NOVEL TESTIS-SPECIFIC TUBULIN
;  TITLE OF INVENTION:  TYROSINE-LIGASE-LIKE PROTEIN, BGS42
;  FILE REFERENCE: D0283A CIP
;  CURRENT APPLICATION NUMBER: US/10/635,977
;  CURRENT FILING DATE:  2003-08-07
;  PRIOR APPLICATION NUMBER: U.S. 60/394,725
;  PRIOR FILING DATE: 2002-07-09
;  PRIOR APPLICATION NUMBER: U.S.10/615,659
;  PRIOR FILING DATE: 2003-07-09
;  NUMBER OF SEQ ID NOS: 103
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 22
;   LENGTH: 49
;   TYPE: PRT
;   ORGANISM: Rattus norvegicus
US-10-635-977-22

  Query Match             9.1%;  Score 49;  DB 4;  Length 49;
  Best Local Similarity   100.0%;  Pred. No. 4.8e-41;
  Matches   49;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        192 DTKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNN 240
              |||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 DTKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNN 49


RESULT 13
US-10-615-659-24
; Sequence 24, Application US/10615659
; Publication No. US20040157234A1
; GENERAL INFORMATION:
;  APPLICANT: Bristol-Myers Squibb Company
;  TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING A NOVEL TESTIS-SPECIFIC TUBULIN
;  TITLE OF INVENTION:  TYROSINE-LIGASE-LIKE PROTEIN, BGS42
;  FILE REFERENCE: D0283 NP
;  CURRENT APPLICATION NUMBER: US/10/615,659
;  CURRENT FILING DATE:  2003-07-09
;  PRIOR APPLICATION NUMBER: U.S. 60/394,725
;  PRIOR FILING DATE: 2002-07-09
;  NUMBER OF SEQ ID NOS: 102
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 24
;   LENGTH: 42
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-615-659-24

  Query Match             7.8%;  Score 42;  DB 4;  Length 42;
  Best Local Similarity   100.0%;  Pred. No. 5e-34;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        482 LPACPCRHVDSQAPNTGVPVAQPAKSWDPNQLNAHPLEPVLR 523
              |||||||||||||||||||||||||||||||||||||||||||
Db          1 LPACPCRHVDSQAPNTGVPVAQPAKSWDPNQLNAHPLEPVLR 42


RESULT 14
US-10-635-977-24
; Sequence 24, Application US/10635977
; Publication No. US20040171131A1
; GENERAL INFORMATION:
;  APPLICANT: Bristol-Myers Squibb Company
;  TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING A NOVEL TESTIS-SPECIFIC TUBULIN
;  TITLE OF INVENTION:  TYROSINE-LIGASE-LIKE PROTEIN, BGS42
;  FILE REFERENCE: D0283A CIP
;  CURRENT APPLICATION NUMBER: US/10/635,977
;  CURRENT FILING DATE:  2003-08-07
;  PRIOR APPLICATION NUMBER: U.S. 60/394,725
;  PRIOR FILING DATE: 2002-07-09
;  PRIOR APPLICATION NUMBER: U.S.10/615,659
;  PRIOR FILING DATE: 2003-07-09
;  NUMBER OF SEQ ID NOS: 103
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 24
;   LENGTH: 42
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-635-977-24

  Query Match             7.8%;  Score 42;  DB 4;  Length 42;
  Best Local Similarity   100.0%;  Pred. No. 5e-34;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        482 LPACPCRHVDSQAPNTGVPVAQPAKSWDPNQLNAHPLEPVLR 523
              |||||||||||||||||||||||||||||||||||||||||||
Db          1 LPACPCRHVDSQAPNTGVPVAQPAKSWDPNQLNAHPLEPVLR 42
```

RESULT 15
US-10-615-659-23
; Sequence 23, Application US/10615659
; Publication No. US20040157234A1
; GENERAL INFORMATION:
; APPLICANT: Bristol-Myers Squibb Company
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING A NOVEL TESTIS-SPECIFIC TUBULIN
; TITLE OF INVENTION: TYROSINE-LIGASE-LIKE PROTEIN, BGS42
; FILE REFERENCE: D0283 NP
; CURRENT APPLICATION NUMBER: US/10/615,659
; CURRENT FILING DATE: 2003-07-09
; PRIOR APPLICATION NUMBER: U.S. 60/394,725
; PRIOR FILING DATE: 2002-07-09
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 23
; LENGTH: 26
; TYPE: PRT
; ORGANISM: Rattus norvegicus
US-10-615-659-23

Query Match 4.8%; Score 26; DB 4; Length 26;
Best Local Similarity 100.0%; Pred. No. 4.7e-18;
Matches 26; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy        332 SSPTMHPSTPVTAQLCAQVQEDTIKV 357
              ||||||||||||||||||||||||||
Db          1 SSPTMHPSTPVTAQLCAQVQEDTIKV 26
```

Search completed: May 15, 2006, 09:59:56
Job time : 85 secs

GenCore version 5.1.8

OM protein - protein search, using sw model

Run on: May 15, 2006, 09:57:49 ; Search time 27 Seconds
(without alignments)
1656.576 Million cell updates/sec

Title: US-10-635-977-2
Perfect score: 541
Sequence: 1 MASSILKWVVSHQSCSRSSR.....LRGLKTAEGALRPPPGGKGS 541

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 572060 seqs, 82675679 residues

Word size : 1

Total number of hits satisfying chosen parameters: 570988

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : Issued_Patents_AA:*
1: /cgn2_6/ptodata/1/iaa/5_COMB.pep:*
2: /cgn2_6/ptodata/1/iaa/6_COMB.pep:*
3: /cgn2_6/ptodata/1/iaa/H_COMB.pep:*
4: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
5: /cgn2_6/ptodata/1/iaa/RE_COMB.pep:*
6: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	8	1.5	96	2	US-09-220-528-19	Sequence 19, Appl
2	8	1.5	96	2	US-09-473-551-9	Sequence 9, Appli
3	8	1.5	113	2	US-09-220-528-3	Sequence 3, Appli
4	8	1.5	113	2	US-09-347-613C-7	Sequence 7, Appli
5	8	1.5	113	2	US-09-347-613C-12	Sequence 12, Appl
6	8	1.5	113	2	US-09-662-183A-7	Sequence 7, Appli
7	8	1.5	113	2	US-09-662-183A-12	Sequence 12, Appl
8	8	1.5	116	2	US-09-220-528-4	Sequence 4, Appli
9	8	1.5	116	2	US-09-347-613C-6	Sequence 6, Appli
10	8	1.5	116	2	US-09-347-613C-11	Sequence 11, Appl
11	8	1.5	116	2	US-09-662-183A-6	Sequence 6, Appli
12	8	1.5	116	2	US-09-662-183A-11	Sequence 11, Appl
13	8	1.5	140	2	US-09-220-528-5	Sequence 5, Appli
14	8	1.5	140	2	US-09-347-613C-5	Sequence 5, Appli
15	8	1.5	140	2	US-09-347-613C-10	Sequence 10, Appl
16	8	1.5	140	2	US-09-662-183A-5	Sequence 5, Appli
17	8	1.5	140	2	US-09-662-183A-10	Sequence 10, Appl
18	8	1.5	159	2	US-09-220-528-12	Sequence 12, Appl
19	8	1.5	159	2	US-09-220-528-89	Sequence 89, Appl
20	8	1.5	165	2	US-09-534-811-8	Sequence 8, Appli
21	8	1.5	181	2	US-09-220-528-40	Sequence 40, Appl
22	8	1.5	200	2	US-09-347-613C-2	Sequence 2, Appli
23	8	1.5	200	2	US-09-662-183A-2	Sequence 2, Appli
24	8	1.5	220	2	US-09-220-528-26	Sequence 26, Appl
25	8	1.5	220	2	US-09-347-613C-9	Sequence 9, Appli
26	8	1.5	220	2	US-09-347-613C-35	Sequence 35, Appl
27	8	1.5	220	2	US-09-662-183A-9	Sequence 9, Appli
28	8	1.5	220	2	US-09-662-183A-35	Sequence 35, Appl
29	8	1.5	237	2	US-09-220-528-32	Sequence 32, Appl
30	8	1.5	237	2	US-09-347-613C-4	Sequence 4, Appli
31	8	1.5	237	2	US-09-662-183A-4	Sequence 4, Appli
32	8	1.5	297	2	US-09-252-991A-21551	Sequence 21551, A
33	8	1.5	453	2	US-09-538-092-746	Sequence 746, App
34	8	1.5	932	2	US-09-252-991A-26175	Sequence 26175, A
35	7	1.3	30	1	US-08-143-365A-6	Sequence 6, Appli
36	7	1.3	47	1	US-08-143-365A-7	Sequence 7, Appli
37	7	1.3	52	2	US-09-330-330-10	Sequence 10, Appl
38	7	1.3	53	2	US-09-267-177-17	Sequence 17, Appl
39	7	1.3	63	2	US-09-621-976-7125	Sequence 7125, Ap
40	7	1.3	69	2	US-09-267-177-34	Sequence 34, Appl
41	7	1.3	69	2	US-09-328-352-4499	Sequence 4499, Ap
42	7	1.3	75	2	US-09-513-999C-6280	Sequence 6280, Ap
43	7	1.3	84	2	US-09-513-999C-7316	Sequence 7316, Ap
44	7	1.3	89	2	US-09-205-258-880	Sequence 880, App
45	7	1.3	89	2	US-10-004-860-880	Sequence 880, App

ALIGNMENTS

RESULT 1
US-09-220-528-19
; Sequence 19, Application US/09220528A
; Patent No. 6284540
; GENERAL INFORMATION:
; APPLICANT: Milbrandt, Jeffrey D.
; APPLICANT: Baloh, Robert H.
; TITLE OF INVENTION: Artemin, A No. 6284540el Neurotrophic Factor
; FILE REFERENCE: 6029-7998
; CURRENT APPLICATION NUMBER: US/09/220,528A
; CURRENT FILING DATE: 1998-12-24
; EARLIER APPLICATION NUMBER: 09/218,698
; EARLIER FILING DATE: 1998-12-22
; EARLIER APPLICATION NUMBER: 60/108,148
; EARLIER FILING DATE: 1998-11-12
; EARLIER APPLICATION NUMBER: 09/163,283
; EARLIER FILING DATE: 1998-09-29
; NUMBER OF SEQ ID NOS: 120
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 19
; LENGTH: 96
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-220-528-19

Query Match 1.5%; Score 8; DB 2; Length 96;
Best Local Similarity 100.0%; Pred. No. 4;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 530 GALRPPPG 537
||||||||
Db 50 GALRPPPG 57

RESULT 2
US-09-473-551-9
; Sequence 9, Application US/09473551
; Patent No. 6866851
; GENERAL INFORMATION:
; APPLICANT: MILBRANDT, Jeffrey D.
; APPLICANT: BALOH, Robert H.
; TITLE OF INVENTION: GFR-alpha-1-RET Specific Agonists and Methods Therefor
; FILE REFERENCE: 6029-9879
; CURRENT APPLICATION NUMBER: US/09/473,551
; CURRENT FILING DATE: 1999-12-28
; NUMBER OF SEQ ID NOS: 28
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 9
; LENGTH: 96
; TYPE: PRT

```
;   ORGANISM: Homo sapiens
US-09-473-551-9

  Query Match             1.5%;  Score 8;  DB 2;  Length 96;
  Best Local Similarity   100.0%;  Pred. No. 4;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        530 GALRPPPG 537
              ||||||||
Db         50 GALRPPPG 57


RESULT 3
US-09-220-528-3
; Sequence 3, Application US/09220528A
; Patent No. 6284540
; GENERAL INFORMATION:
;  APPLICANT: Milbrandt, Jeffrey D.
;  APPLICANT: Baloh, Robert H.
;  TITLE OF INVENTION: Artemin, A No. 6284540el Neurotrophic Factor
;  FILE REFERENCE: 6029-7998
;  CURRENT APPLICATION NUMBER: US/09/220,528A
;  CURRENT FILING DATE: 1998-12-24
;  EARLIER APPLICATION NUMBER: 09/218,698
;  EARLIER FILING DATE: 1998-12-22
;  EARLIER APPLICATION NUMBER: 60/108,148
;  EARLIER FILING DATE: 1998-11-12
;  EARLIER APPLICATION NUMBER: 09/163,283
;  EARLIER FILING DATE: 1998-09-29
;  NUMBER OF SEQ ID NOS: 120
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3
;   LENGTH: 113
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-220-528-3

  Query Match             1.5%;  Score 8;  DB 2;  Length 113;
  Best Local Similarity   100.0%;  Pred. No. 4.7;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        530 GALRPPPG 537
              ||||||||
Db         65 GALRPPPG 72


RESULT 4
US-09-347-613C-7
; Sequence 7, Application US/09347613C
; Patent No. 6593133
; GENERAL INFORMATION:
;  APPLICANT: Johansen, Teit E.
;  APPLICANT:  Blom, Nikolaj
;  APPLICANT:  Hansen, Claus
;  TITLE OF INVENTION: No. 6593133el Neurotrophic Factors
;  FILE REFERENCE: NeuroSearch 19313-001
;  CURRENT APPLICATION NUMBER: US/09/347,613C
;  CURRENT FILING DATE:  1999-07-02
;  PRIOR APPLICATION NUMBER: DANISH  1998 00904
;  PRIOR FILING DATE: 1998-07-06
;  PRIOR APPLICATION NUMBER: USSN 60/092,229
;  PRIOR FILING DATE: 1998-07-09
;  PRIOR APPLICATION NUMBER: DANISH  1998 01048
;  PRIOR FILING DATE: 1998-08-19
;  PRIOR APPLICATION NUMBER: USSN 60/097,774
;  PRIOR FILING DATE: 1998-08-25
;  PRIOR APPLICATION NUMBER: DANISH  1998 01260
;  PRIOR FILING DATE: 1998-10-05
;  PRIOR APPLICATION NUMBER: USSN 60/103,908
;  PRIOR FILING DATE: 1998-10-13
;  PRIOR APPLICATION NUMBER: DANISH  1998 01265
;  PRIOR FILING DATE: 1998-10-06
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 7
;   LENGTH: 113
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: VARIANT
;   LOCATION: (107)
;   OTHER INFORMATION: Wherein Xaa at position 107 designates Asn or Thr
;   FEATURE:
;   NAME/KEY: VARIANT
;   LOCATION: (108)
;   OTHER INFORMATION: Wherein Xaa at position 108 designates Ala or Pro
US-09-347-613C-7

  Query Match             1.5%;  Score 8;  DB 2;  Length 113;
  Best Local Similarity   100.0%;  Pred. No. 4.7;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        530 GALRPPPG 537
              ||||||||
Db         65 GALRPPPG 72


RESULT 5
US-09-347-613C-12
; Sequence 12, Application US/09347613C
; Patent No. 6593133
; GENERAL INFORMATION:
;  APPLICANT: Johansen, Teit E.
;  APPLICANT:  Blom, Nikolaj
;  APPLICANT:  Hansen, Claus
;  TITLE OF INVENTION: No. 6593133el Neurotrophic Factors
;  FILE REFERENCE: NeuroSearch 19313-001
;  CURRENT APPLICATION NUMBER: US/09/347,613C
;  CURRENT FILING DATE:  1999-07-02
;  PRIOR APPLICATION NUMBER: DANISH  1998 00904
;  PRIOR FILING DATE: 1998-07-06
;  PRIOR APPLICATION NUMBER: USSN 60/092,229
;  PRIOR FILING DATE: 1998-07-09
;  PRIOR APPLICATION NUMBER: DANISH  1998 01048
;  PRIOR FILING DATE: 1998-08-19
;  PRIOR APPLICATION NUMBER: USSN 60/097,774
;  PRIOR FILING DATE: 1998-08-25
;  PRIOR APPLICATION NUMBER: DANISH  1998 01260
;  PRIOR FILING DATE: 1998-10-05
;  PRIOR APPLICATION NUMBER: USSN 60/103,908
;  PRIOR FILING DATE: 1998-10-13
;  PRIOR APPLICATION NUMBER: DANISH  1998 01265
;  PRIOR FILING DATE: 1998-10-06
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 12
;   LENGTH: 113
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: CARBOHYD
;   LOCATION: (95)
;   OTHER INFORMATION: glycosylated asparagine
US-09-347-613C-12

  Query Match             1.5%;  Score 8;  DB 2;  Length 113;
  Best Local Similarity   100.0%;  Pred. No. 4.7;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        530 GALRPPPG 537
              ||||||||
Db         65 GALRPPPG 72


RESULT 6
US-09-662-183A-7
```

; Sequence 7, Application US/09662183A
; Patent No. 6734284
; GENERAL INFORMATION:
; APPLICANT: Johansen, Teit E.
; APPLICANT: Blom, Nikolaj
; APPLICANT: Hansen, Claus
; TITLE OF INVENTION: No. 6734284el Neurotrophic Factors
; FILE REFERENCE: 19313-001 DIV
; CURRENT APPLICATION NUMBER: US/09/662,183A
; CURRENT FILING DATE: 2000-09-14
; PRIOR APPLICATION NUMBER: DANISH 1998 00904
; PRIOR FILING DATE: 1998-07-06
; PRIOR APPLICATION NUMBER: USSN 60/092,229
; PRIOR FILING DATE: 1998-07-09
; PRIOR APPLICATION NUMBER: DANISH 1998 01048
; PRIOR FILING DATE: 1998-08-19
; PRIOR APPLICATION NUMBER: USSN 60/097,774
; PRIOR FILING DATE: 1998-08-25
; PRIOR APPLICATION NUMBER: DANISH 1998 01260
; PRIOR FILING DATE: 1998-10-05
; PRIOR APPLICATION NUMBER: USSN 60/103,908
; PRIOR FILING DATE: 1998-10-13
; PRIOR APPLICATION NUMBER: DANISH 1998 01265
; PRIOR FILING DATE: 1998-10-06
; PRIOR APPLICATION NUMBER: 09/347,613
; PRIOR FILING DATE: 2000-07-02
; NUMBER OF SEQ ID NOS: 43
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 7
; LENGTH: 113
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: VARIANT
; LOCATION: (107)
; OTHER INFORMATION: Wherein Xaa at position 107 designates Asn or Thr
; FEATURE:
; NAME/KEY: VARIANT
; LOCATION: (108)
; OTHER INFORMATION: Wherein Xaa at position 108 designates Ala or Pro
US-09-662-183A-7

Query Match 1.5%; Score 8; DB 2; Length 113;
Best Local Similarity 100.0%; Pred. No. 4.7;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 530 GALRPPPG 537
||||||||
Db 65 GALRPPPG 72

RESULT 7
US-09-662-183A-12
; Sequence 12, Application US/09662183A
; Patent No. 6734284
; GENERAL INFORMATION:
; APPLICANT: Johansen, Teit E.
; APPLICANT: Blom, Nikolaj
; APPLICANT: Hansen, Claus
; TITLE OF INVENTION: No. 6734284el Neurotrophic Factors
; FILE REFERENCE: 19313-001 DIV
; CURRENT APPLICATION NUMBER: US/09/662,183A
; CURRENT FILING DATE: 2000-09-14
; PRIOR APPLICATION NUMBER: DANISH 1998 00904
; PRIOR FILING DATE: 1998-07-06
; PRIOR APPLICATION NUMBER: USSN 60/092,229
; PRIOR FILING DATE: 1998-07-09
; PRIOR APPLICATION NUMBER: DANISH 1998 01048
; PRIOR FILING DATE: 1998-08-19
; PRIOR APPLICATION NUMBER: USSN 60/097,774
; PRIOR FILING DATE: 1998-08-25
; PRIOR APPLICATION NUMBER: DANISH 1998 01260
; PRIOR FILING DATE: 1998-10-05
; PRIOR APPLICATION NUMBER: USSN 60/103,908
; PRIOR FILING DATE: 1998-10-13
; PRIOR APPLICATION NUMBER: DANISH 1998 01265
; PRIOR FILING DATE: 1998-10-06
; PRIOR APPLICATION NUMBER: 09/347,613
; PRIOR FILING DATE: 2000-07-02
; NUMBER OF SEQ ID NOS: 43
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 12
; LENGTH: 113
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: CARBOHYD
; LOCATION: (95)
; OTHER INFORMATION: glycosylated asparagine
US-09-662-183A-12

Query Match 1.5%; Score 8; DB 2; Length 113;
Best Local Similarity 100.0%; Pred. No. 4.7;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 530 GALRPPPG 537
||||||||
Db 65 GALRPPPG 72

RESULT 8
US-09-220-528-4
; Sequence 4, Application US/09220528A
; Patent No. 6284540
; GENERAL INFORMATION:
; APPLICANT: Milbrandt, Jeffrey D.
; APPLICANT: Baloh, Robert H.
; TITLE OF INVENTION: Artemin, A No. 6284540el Neurotrophic Factor
; FILE REFERENCE: 6029-7998
; CURRENT APPLICATION NUMBER: US/09/220,528A
; CURRENT FILING DATE: 1998-12-24
; EARLIER APPLICATION NUMBER: 09/218,698
; EARLIER FILING DATE: 1998-12-22
; EARLIER APPLICATION NUMBER: 60/108,148
; EARLIER FILING DATE: 1998-11-12
; EARLIER APPLICATION NUMBER: 09/163,283
; EARLIER FILING DATE: 1998-09-29
; NUMBER OF SEQ ID NOS: 120
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 4
; LENGTH: 116
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-220-528-4

Query Match 1.5%; Score 8; DB 2; Length 116;
Best Local Similarity 100.0%; Pred. No. 4.8;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 530 GALRPPPG 537
||||||||
Db 68 GALRPPPG 75

RESULT 9
US-09-347-613C-6
; Sequence 6, Application US/09347613C
; Patent No. 6593133
; GENERAL INFORMATION:
; APPLICANT: Johansen, Teit E.
; APPLICANT: Blom, Nikolaj
; APPLICANT: Hansen, Claus
; TITLE OF INVENTION: No. 6593133el Neurotrophic Factors
; FILE REFERENCE: NeuroSearch 19313-001
; CURRENT APPLICATION NUMBER: US/09/347,613C
; CURRENT FILING DATE: 1999-07-02

```
;  PRIOR APPLICATION NUMBER: DANISH  1998 00904
;  PRIOR FILING DATE: 1998-07-06
;  PRIOR APPLICATION NUMBER: USSN 60/092,229
;  PRIOR FILING DATE: 1998-07-09
;  PRIOR APPLICATION NUMBER: DANISH  1998 01048
;  PRIOR FILING DATE: 1998-08-19
;  PRIOR APPLICATION NUMBER: USSN 60/097,774
;  PRIOR FILING DATE: 1998-08-25
;  PRIOR APPLICATION NUMBER: DANISH  1998 01260
;  PRIOR FILING DATE: 1998-10-05
;  PRIOR APPLICATION NUMBER: USSN 60/103,908
;  PRIOR FILING DATE: 1998-10-13
;  PRIOR APPLICATION NUMBER: DANISH  1998 01265
;  PRIOR FILING DATE: 1998-10-06
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 6
;   LENGTH: 116
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: VARIANT
;   LOCATION: (110)
;   OTHER INFORMATION: Wherein Xaa at position 110 designates Asn or Thr
;   FEATURE:
;   NAME/KEY: VARIANT
;   LOCATION: (111)
;   OTHER INFORMATION: Wherein Xaa at position 111 designates Ala or Pro
US-09-347-613C-6

  Query Match             1.5%;  Score 8;  DB 2;  Length 116;
  Best Local Similarity   100.0%;  Pred. No. 4.8;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        530 GALRPPPG 537
              ||||||||
Db         68 GALRPPPG 75


RESULT 10
US-09-347-613C-11
; Sequence 11, Application US/09347613C
; Patent No. 6593133
; GENERAL INFORMATION:
;  APPLICANT: Johansen, Teit E.
;  APPLICANT:  Blom, Nikolaj
;  APPLICANT:  Hansen, Claus
;  TITLE OF INVENTION: No. 6593133el Neurotrophic Factors
;  FILE REFERENCE: NeuroSearch 19313-001
;  CURRENT APPLICATION NUMBER: US/09/347,613C
;  CURRENT FILING DATE:  1999-07-02
;  PRIOR APPLICATION NUMBER: DANISH  1998 00904
;  PRIOR FILING DATE: 1998-07-06
;  PRIOR APPLICATION NUMBER: USSN 60/092,229
;  PRIOR FILING DATE: 1998-07-09
;  PRIOR APPLICATION NUMBER: DANISH  1998 01048
;  PRIOR FILING DATE: 1998-08-19
;  PRIOR APPLICATION NUMBER: USSN 60/097,774
;  PRIOR FILING DATE: 1998-08-25
;  PRIOR APPLICATION NUMBER: DANISH  1998 01260
;  PRIOR FILING DATE: 1998-10-05
;  PRIOR APPLICATION NUMBER: USSN 60/103,908
;  PRIOR FILING DATE: 1998-10-13
;  PRIOR APPLICATION NUMBER: DANISH  1998 01265
;  PRIOR FILING DATE: 1998-10-06
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 11
;   LENGTH: 116
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: CARBOHYD
;   LOCATION: (98)
;   OTHER INFORMATION: glycosylated asparagine
US-09-347-613C-11

  Query Match             1.5%;  Score 8;  DB 2;  Length 116;
  Best Local Similarity   100.0%;  Pred. No. 4.8;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        530 GALRPPPG 537
              ||||||||
Db         68 GALRPPPG 75


RESULT 11
US-09-662-183A-6
; Sequence 6, Application US/09662183A
; Patent No. 6734284
; GENERAL INFORMATION:
;  APPLICANT: Johansen, Teit E.
;  APPLICANT:  Blom, Nikolaj
;  APPLICANT:  Hansen, Claus
;  TITLE OF INVENTION: No. 6734284el Neurotrophic Factors
;  FILE REFERENCE: 19313-001 DIV
;  CURRENT APPLICATION NUMBER: US/09/662,183A
;  CURRENT FILING DATE:  2000-09-14
;  PRIOR APPLICATION NUMBER: DANISH  1998 00904
;  PRIOR FILING DATE: 1998-07-06
;  PRIOR APPLICATION NUMBER: USSN 60/092,229
;  PRIOR FILING DATE: 1998-07-09
;  PRIOR APPLICATION NUMBER: DANISH  1998 01048
;  PRIOR FILING DATE: 1998-08-19
;  PRIOR APPLICATION NUMBER: USSN 60/097,774
;  PRIOR FILING DATE: 1998-08-25
;  PRIOR APPLICATION NUMBER: DANISH  1998 01260
;  PRIOR FILING DATE: 1998-10-05
;  PRIOR APPLICATION NUMBER: USSN 60/103,908
;  PRIOR FILING DATE: 1998-10-13
;  PRIOR APPLICATION NUMBER: DANISH  1998 01265
;  PRIOR FILING DATE: 1998-10-06
;  PRIOR APPLICATION NUMBER: 09/347,613
;  PRIOR FILING DATE: 2000-07-02
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 6
;   LENGTH: 116
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: VARIANT
;   LOCATION: (110)
;   OTHER INFORMATION: Wherein Xaa at position 110 designates Asn or Thr
;   FEATURE:
;   NAME/KEY: VARIANT
;   LOCATION: (111)
;   OTHER INFORMATION: Wherein Xaa at position 111 designates Ala or Pro
US-09-662-183A-6

  Query Match             1.5%;  Score 8;  DB 2;  Length 116;
  Best Local Similarity   100.0%;  Pred. No. 4.8;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        530 GALRPPPG 537
              ||||||||
Db         68 GALRPPPG 75


RESULT 12
US-09-662-183A-11
; Sequence 11, Application US/09662183A
; Patent No. 6734284
; GENERAL INFORMATION:
;  APPLICANT: Johansen, Teit E.
;  APPLICANT:  Blom, Nikolaj
```

```
;  APPLICANT:  Hansen, Claus
;  TITLE OF INVENTION: No. 6734284el Neurotrophic Factors
;  FILE REFERENCE: 19313-001 DIV
;  CURRENT APPLICATION NUMBER: US/09/662,183A
;  CURRENT FILING DATE:  2000-09-14
;  PRIOR APPLICATION NUMBER: DANISH  1998 00904
;  PRIOR FILING DATE: 1998-07-06
;  PRIOR APPLICATION NUMBER: USSN 60/092,229
;  PRIOR FILING DATE: 1998-07-09
;  PRIOR APPLICATION NUMBER: DANISH  1998 01048
;  PRIOR FILING DATE: 1998-08-19
;  PRIOR APPLICATION NUMBER: USSN 60/097,774
;  PRIOR FILING DATE: 1998-08-25
;  PRIOR APPLICATION NUMBER: DANISH  1998 01260
;  PRIOR FILING DATE: 1998-10-05
;  PRIOR APPLICATION NUMBER: USSN 60/103,908
;  PRIOR FILING DATE: 1998-10-13
;  PRIOR APPLICATION NUMBER: DANISH  1998 01265
;  PRIOR FILING DATE: 1998-10-06
;  PRIOR APPLICATION NUMBER: 09/347,613
;  PRIOR FILING DATE: 2000-07-02
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 11
;   LENGTH: 116
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: CARBOHYD
;   LOCATION: (98)
;   OTHER INFORMATION: glycosylated asparagine
US-09-662-183A-11

  Query Match             1.5%;  Score 8;  DB 2;  Length 116;
  Best Local Similarity   100.0%;  Pred. No. 4.8;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        530 GALRPPPG 537
              ||||||||
Db         68 GALRPPPG 75


RESULT 13
US-09-220-528-5
; Sequence 5, Application US/09220528A
; Patent No. 6284540
; GENERAL INFORMATION:
;  APPLICANT: Milbrandt, Jeffrey D.
;  APPLICANT: Baloh, Robert H.
;  TITLE OF INVENTION: Artemin, A No. 6284540el Neurotrophic Factor
;  FILE REFERENCE: 6029-7998
;  CURRENT APPLICATION NUMBER: US/09/220,528A
;  CURRENT FILING DATE: 1998-12-24
;  EARLIER APPLICATION NUMBER: 09/218,698
;  EARLIER FILING DATE: 1998-12-22
;  EARLIER APPLICATION NUMBER: 60/108,148
;  EARLIER FILING DATE: 1998-11-12
;  EARLIER APPLICATION NUMBER: 09/163,283
;  EARLIER FILING DATE: 1998-09-29
;  NUMBER OF SEQ ID NOS: 120
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 5
;   LENGTH: 140
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-220-528-5

  Query Match             1.5%;  Score 8;  DB 2;  Length 140;
  Best Local Similarity   100.0%;  Pred. No. 5.9;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        530 GALRPPPG 537
              ||||||||
Db         92 GALRPPPG 99


RESULT 14
US-09-347-613C-5
; Sequence 5, Application US/09347613C
; Patent No. 6593133
; GENERAL INFORMATION:
;  APPLICANT: Johansen, Teit E.
;  APPLICANT:  Blom, Nikolaj
;  APPLICANT:  Hansen, Claus
;  TITLE OF INVENTION: No. 6593133el Neurotrophic Factors
;  FILE REFERENCE: NeuroSearch 19313-001
;  CURRENT APPLICATION NUMBER: US/09/347,613C
;  CURRENT FILING DATE:  1999-07-02
;  PRIOR APPLICATION NUMBER: DANISH  1998 00904
;  PRIOR FILING DATE: 1998-07-06
;  PRIOR APPLICATION NUMBER: USSN 60/092,229
;  PRIOR FILING DATE: 1998-07-09
;  PRIOR APPLICATION NUMBER: DANISH  1998 01048
;  PRIOR FILING DATE: 1998-08-19
;  PRIOR APPLICATION NUMBER: USSN 60/097,774
;  PRIOR FILING DATE: 1998-08-25
;  PRIOR APPLICATION NUMBER: DANISH  1998 01260
;  PRIOR FILING DATE: 1998-10-05
;  PRIOR APPLICATION NUMBER: USSN 60/103,908
;  PRIOR FILING DATE: 1998-10-13
;  PRIOR APPLICATION NUMBER: DANISH  1998 01265
;  PRIOR FILING DATE: 1998-10-06
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 5
;   LENGTH: 140
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: VARIANT
;   LOCATION: (134)
;   OTHER INFORMATION: Wherein Xaa at position 134 designates Asn or Thr
;   FEATURE:
;   NAME/KEY: VARIANT
;   LOCATION: (135)
;   OTHER INFORMATION: Wherein Xaa at position 135 designates Ala or Pro
US-09-347-613C-5

  Query Match             1.5%;  Score 8;  DB 2;  Length 140;
  Best Local Similarity   100.0%;  Pred. No. 5.9;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        530 GALRPPPG 537
              ||||||||
Db         92 GALRPPPG 99


RESULT 15
US-09-347-613C-10
; Sequence 10, Application US/09347613C
; Patent No. 6593133
; GENERAL INFORMATION:
;  APPLICANT: Johansen, Teit E.
;  APPLICANT:  Blom, Nikolaj
;  APPLICANT:  Hansen, Claus
;  TITLE OF INVENTION: No. 6593133el Neurotrophic Factors
;  FILE REFERENCE: NeuroSearch 19313-001
;  CURRENT APPLICATION NUMBER: US/09/347,613C
;  CURRENT FILING DATE:  1999-07-02
;  PRIOR APPLICATION NUMBER: DANISH  1998 00904
;  PRIOR FILING DATE: 1998-07-06
;  PRIOR APPLICATION NUMBER: USSN 60/092,229
;  PRIOR FILING DATE: 1998-07-09
;  PRIOR APPLICATION NUMBER: DANISH  1998 01048
;  PRIOR FILING DATE: 1998-08-19
;  PRIOR APPLICATION NUMBER: USSN 60/097,774
```

```
;  PRIOR FILING DATE: 1998-08-25
;  PRIOR APPLICATION NUMBER: DANISH  1998 01260
;  PRIOR FILING DATE: 1998-10-05
;  PRIOR APPLICATION NUMBER: USSN 60/103,908
;  PRIOR FILING DATE: 1998-10-13
;  PRIOR APPLICATION NUMBER: DANISH  1998 01265
;  PRIOR FILING DATE: 1998-10-06
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 10
;   LENGTH: 140
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: CARBOHYD
;   LOCATION: (122)
;   OTHER INFORMATION: glycosylated asparagine
US-09-347-613C-10

  Query Match             1.5%;  Score 8;  DB 2;  Length 140;
  Best Local Similarity   100.0%;  Pred. No. 5.9;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        530 GALRPPPG 537
              ||||||||
Db         92 GALRPPPG 99


Search completed: May 15, 2006, 09:58:24
Job time : 27 secs
```

GenCore version 5.1.8

OM protein - protein search, using sw model

Run on: May 15, 2006, 09:56:28 ; Search time 62 Seconds
(without alignments)
3833.934 Million cell updates/sec

Title: US-10-635-977-2
Perfect score: 541
Sequence: 1 MASSILKWVVSHQSCSRSSR.....LRGLKTAEGALRPPPGGKGS 541

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 2443163 seqs, 439378781 residues

Word size : 1

Total number of hits satisfying chosen parameters: 2442881

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : A_Geneseq_21:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*
9: geneseqp2005s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

length of match / Query

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	541	100.0	541	8	ADJ93358	Adj93358 Human BGS
2	514	95.0	541	8	ADJ93365	Adj93365 Human tub
3	293	54.2	293	8	ADJ93366	Adj93366 Human BGS
4	242	44.7	242	8	ADJ93360	Adj93360 Human BGS
5	101	18.7	402	8	ADU02747	Adu02747 Novel hum
6	49	9.1	49	8	ADJ93373	Adj93373 Human BGS
7	42	7.8	42	8	ADJ93376	Adj93376 Human BGS
8	39	7.2	61	8	ADJ93452	Adj93452 Human BGS
9	26	4.8	26	8	ADJ93374	Adj93374 Human BGS
10	23	4.3	23	8	ADJ93371	Adj93371 Human BGS
11	17	3.1	17	8	ADJ93377	Adj93377 Human BGS
12	16	3.0	16	8	ADJ93397	Adj93397 Human BGS
13	16	3.0	16	8	ADJ93398	Adj93398 Human BGS
14	16	3.0	16	8	ADJ93401	Adj93401 Human BGS
15	16	3.0	16	8	ADJ93396	Adj93396 Human BGS
16	16	3.0	16	8	ADJ93400	Adj93400 Human BGS
17	16	3.0	16	8	ADJ93399	Adj93399 Human BGS
18	14	2.6	14	8	ADJ93390	Adj93390 Human BGS
19	14	2.6	14	8	ADJ93389	Adj93389 Human BGS
20	14	2.6	14	8	ADJ93394	Adj93394 Human BGS
21	14	2.6	14	8	ADJ93393	Adj93393 Human BGS
22	14	2.6	14	8	ADJ93388	Adj93388 Human BGS
23	14	2.6	14	8	ADJ93392	Adj93392 Human BGS
24	14	2.6	14	8	ADJ93395	Adj93395 Human BGS
25	14	2.6	14	8	ADJ93391	Adj93391 Human BGS
26	13	2.4	13	8	ADJ93383	Adj93383 Human BGS
27	13	2.4	13	8	ADJ93387	Adj93387 Human BGS
28	13	2.4	13	8	ADJ93368	Adj93368 Human BGS
29	13	2.4	13	8	ADJ93386	Adj93386 Human BGS
30	13	2.4	13	8	ADJ93382	Adj93382 Human BGS
31	13	2.4	13	8	ADJ93384	Adj93384 Human BGS
32	13	2.4	13	8	ADJ93375	Adj93375 Human BGS
33	13	2.4	13	8	ADJ93385	Adj93385 Human BGS
34	13	2.4	13	8	ADJ93372	Adj93372 Human BGS
35	13	2.4	13	8	ADJ93381	Adj93381 Human BGS
36	13	2.4	292	8	ADJ93455	Adj93455 Human HOT
37	13	2.4	326	7	ADM05524	Adm05524 Human pro
38	13	2.4	352	3	AAB43005	Aab43005 Human ORF
39	13	2.4	352	4	AAM39450	Aam39450 Human pol
40	13	2.4	352	8	ADJ93457	Adj93457 Human HOT
41	13	2.4	352	8	ABM80420	Abm80420 Tumour-as
42	13	2.4	362	3	AAB58909	Aab58909 Breast an
43	13	2.4	362	4	AAM41236	Aam41236 Human pol
44	13	2.4	399	6	ABU11512	Abu11512 Human MDD
45	13	2.4	488	5	AAU74334	Aau74334 Human cyt

ALIGNMENTS

RESULT 1
ADJ93358
ID ADJ93358 standard; protein; 541 AA.
XX
AC ADJ93358;
XX
DT 06-MAY-2004 (first entry)
XX
DE Human BGS-42 protein sequence SeqID2.
XX
KW testis-specific tubulin tyrosine-ligase-like polypeptide;
KW BGS-42 polypeptide; cytostatic; respiratory-Gen; gastrointestinal-Gen;
KW neuroprotective; endocrine-Gen; antiinflammatory; anabolic; hypertensive;
KW osteopathic; nootropic; antiparkinsonian; antiarthritic; antiasthmatic;
KW anti-HIV; antibacterial; immunosuppressive; antiseborrheic;
KW dermatological; tyrosine ligase modulator; gene therapy; tubulin ligase;
KW tubulin-carboxypeptidase; cellular proliferation; reproductive disorder;
KW testicular disorder; testicular cancer; pulmonary disorder; lung cancer;
KW gastrointestinal disorder; colon cancer; stomach cancer; neural disorder;
KW brain cancer; liver cancer; proliferative condition; testis; lung;
KW small intestine; brain; lymph tissue; infertility; Cushing's syndrome;
KW emphysema; pneumonia; Addison's disease; acromegaly; Alzheimer's disease;
KW Parkinson's disease; immunological disorder; arthritis; asthma; AIDS;
KW sepsis; acne; Sjogren's disease; scleroderma; human.
XX
OS Homo sapiens.
XX
PN WO2004005487-A2.
XX
PD 15-JAN-2004.
XX
PF 09-JUL-2003; 2003WO-US021605.
XX
PR 09-JUL-2002; 2002US-0394725P.
XX
PA (BRIM) BRISTOL-MYERS SQUIBB CO.
XX
PI Feder JN, Wu S, Nelson TC;
XX
DR WPI; 2004-099381/10.
DR N-PSDB; ADJ93357.
XX
PT New testis-specific tubulin tyrosine-ligase-like BGS-42 polypeptide,
PT useful for preventing, treating or ameliorating a medical condition, e.g.
PT aberrant cellular proliferation, reproductive disorders or testicular
PT disorders.
XX

```
PS   Claim 5; SEQ ID NO 2; 343pp; English.
XX
CC   This invention relates to a novel testis-specific tubulin tyrosine-ligase
CC   -like polypeptide, designated the BGS-42 polypeptide. The invention may
CC   be useful for the development of compounds with a cytostatic, respiratory
CC   -Gen, gastrointestinal-Gen, neuroprotective, endocrine-Gen,
CC   antiinflammatory, anabolic, hypertensive, osteopathic, nootropic,
CC   antiparkinsonian, antiarthritic, antiasthmatic, anti-HIV, antibacterial,
CC   immunosuppressive, antiseborrheic or dermatological activity acting as
CC   tyrosine ligase modulators. In addition, the disclosed sequences may be
CC   useful for gene therapy. The BGS-42 polypeptide or polynucleotide can be
CC   used for diagnosing a pathological condition or a susceptibility to a
CC   pathological condition in a subject, and for preventing, treating or
CC   ameliorating a medical condition, such as a disorder related to aberrant
CC   tubulin ligase activity, a disorder related to aberrant tubulin-
CC   carboxypeptidase activity, aberrant cellular proliferation, reproductive
CC   disorders, testicular disorders, testicular cancer, pulmonary disorders,
CC   lung cancer, gastrointestinal disorders, colon cancer, stomach cancer,
CC   neural disorders, brain cancer, liver cancer, or proliferative condition
CC   of the testis, lung, small intestine, brain or lymph tissue. The BGS-42
CC   polypeptide, polynucleotide, or their modulators are also useful for
CC   treating infertility, Cushing's syndrome, emphysema, pneumonia, Addison's
CC   disease, acromegaly, Alzheimer's disease, or Parkinson's disease. The BGS
CC   -42 polypeptide can be used as a preventive agent for immunological
CC   disorders including arthritis, asthma, AIDS, sepsis, acne, Sjogren's
CC   disease or scleroderma. The antibodies may be used to purify, detect and
CC   target the BGS-42 polypeptides. The present sequence is that of the human
CC   BGS-42 protein of the invention.
XX
SQ   Sequence 541 AA;

  Query Match            100.0%;  Score 541;  DB 8;  Length 541;
  Best Local Similarity  100.0%;  Pred. No. 0;
  Matches  541;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MASSILKWVVSHQSCSRSSRSKPRDQREEAGSSDLSSRQDAENAEAKLRGLPGQLVDIAC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MASSILKWVVSHQSCSRSSRSKPRDQREEAGSSDLSSRQDAENAEAKLRGLPGQLVDIAC 60

Qy         61 KVCQAYLGQLEHEDIDTSADAVEDLTEAEWEDLTQQYYSLVHGDAFISNSRNYFSQCQAL 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 KVCQAYLGQLEHEDIDTSADAVEDLTEAEWEDLTQQYYSLVHGDAFISNSRNYFSQCQAL 120

Qy        121 LNRITSVNPQTDIDGLRNIWIIKPAAKSRGRDIVCMDRVEEILELAAADHPLSRDNKWVV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LNRITSVNPQTDIDGLRNIWIIKPAAKSRGRDIVCMDRVEEILELAAADHPLSRDNKWVV 180

Qy        181 QKYIETPLLICDTKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNN 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 QKYIETPLLICDTKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNN 240

Qy        241 AVQKYLKNDVGRSPLLPAHNMWTSTRFQEYLQRQGRGAVWGSVIYPSMKKAIAHAMKVAQ 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 AVQKYLKNDVGRSPLLPAHNMWTSTRFQEYLQRQGRGAVWGSVIYPSMKKAIAHAMKVAQ 300

Qy        301 DHVEPRKNSFELYGADFVLGRDFRPWLIEINSSPTMHPSTPVTAQLCAQVQEDTIKVAVD 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DHVEPRKNSFELYGADFVLGRDFRPWLIEINSSPTMHPSTPVTAQLCAQVQEDTIKVAVD 360

Qy        361 RSCDIGNFELLWRQPVVEPPPFSGSDLCVAGVSVRRARRQVLPVCNLKASASLLDAQPLK 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 RSCDIGNFELLWRQPVVEPPPFSGSDLCVAGVSVRRARRQVLPVCNLKASASLLDAQPLK 420

Qy        421 ARGPSAMPDPAQGPPSPALQRDLGLKEEKGLPLALLAPLRGAAESGGAAQPTRTKAAGKV 480
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        421 ARGPSAMPDPAQGPPSPALQRDLGLKEEKGLPLALLAPLRGAAESGGAAQPTRTKAAGKV 480

Qy        481 ELPACPCRHVDSQAPNTGVPVAQPAKSWDPNQLNAHPLEPVLRGLKTAEGALRPPPGGKG 540
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        481 ELPACPCRHVDSQAPNTGVPVAQPAKSWDPNQLNAHPLEPVLRGLKTAEGALRPPPGGKG 540

Qy        541 S 541
              |
Db        541 S 541


RESULT 2
ADJ93365
ID   ADJ93365 standard; protein; 541 AA.
XX
AC   ADJ93365;
XX
DT   06-MAY-2004  (first entry)
XX
DE   Human tubulin tyrosine ligase protein consensus sequence SeqID13.
XX
KW   testis-specific tubulin tyrosine-ligase-like polypeptide;
KW   BGS-42 polypeptide; cytostatic; respiratory-Gen; gastrointestinal-Gen;
KW   neuroprotective; endocrine-Gen; antiinflammatory; anabolic; hypertensive;
KW   osteopathic; nootropic; antiparkinsonian; antiarthritic; antiasthmatic;
KW   anti-HIV; antibacterial; immunosuppressive; antiseborrheic;
KW   dermatological; tyrosine ligase modulator; gene therapy; tubulin ligase;
KW   tubulin-carboxypeptidase; cellular proliferation; reproductive disorder;
KW   testicular disorder; testicular cancer; pulmonary disorder; lung cancer;
KW   gastrointestinal disorder; colon cancer; stomach cancer; neural disorder;
KW   brain cancer; liver cancer; proliferative condition; testis; lung;
KW   small intestine; brain; lymph tissue; infertility; Cushing's syndrome;
KW   emphysema; pneumonia; Addison's disease; acromegaly; Alzheimer's disease;
KW   Parkinson's disease; immunological disorder; arthritis; asthma; AIDS;
KW   sepsis; acne; Sjogren's disease; scleroderma; human.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO2004005487-A2.
XX
PD   15-JAN-2004.
XX
PF   09-JUL-2003; 2003WO-US021605.
XX
PR   09-JUL-2002; 2002US-0394725P.
XX
PA   (BRIM ) BRISTOL-MYERS SQUIBB CO.
XX
PI   Feder JN,  Wu S,  Nelson TC;
XX
DR   WPI; 2004-099381/10.
DR   N-PSDB; ADJ93364.
XX
PT   New testis-specific tubulin tyrosine-ligase-like BGS-42 polypeptide,
PT   useful for preventing, treating or ameliorating a medical condition, e.g.
PT   aberrant cellular proliferation, reproductive disorders or testicular
PT   disorders.
XX
PS   Example 4; SEQ ID NO 13; 343pp; English.
XX
CC   This invention relates to a novel testis-specific tubulin tyrosine-ligase
CC   -like polypeptide, designated the BGS-42 polypeptide. The invention may
CC   be useful for the development of compounds with a cytostatic, respiratory
CC   -Gen, gastrointestinal-Gen, neuroprotective, endocrine-Gen,
CC   antiinflammatory, anabolic, hypertensive, osteopathic, nootropic,
CC   antiparkinsonian, antiarthritic, antiasthmatic, anti-HIV, antibacterial,
CC   immunosuppressive, antiseborrheic or dermatological activity acting as
CC   tyrosine ligase modulators. In addition, the disclosed sequences may be
CC   useful for gene therapy. The BGS-42 polypeptide or polynucleotide can be
CC   used for diagnosing a pathological condition or a susceptibility to a
CC   pathological condition in a subject, and for preventing, treating or
CC   ameliorating a medical condition, such as a disorder related to aberrant
CC   tubulin ligase activity, a disorder related to aberrant tubulin-
CC   carboxypeptidase activity, aberrant cellular proliferation, reproductive
CC   disorders, testicular disorders, testicular cancer, pulmonary disorders,
CC   lung cancer, gastrointestinal disorders, colon cancer, stomach cancer,
CC   neural disorders, brain cancer, liver cancer, or proliferative condition
CC   of the testis, lung, small intestine, brain or lymph tissue. The BGS-42
CC   polypeptide, polynucleotide, or their modulators are also useful for
CC   treating infertility, Cushing's syndrome, emphysema, pneumonia, Addison's
```

CC disease, acromegaly, Alzheimer's disease, or Parkinson's disease. The BGS
CC -42 polypeptide can be used as a preventive agent for immunological
CC disorders including arthritis, asthma, AIDS, sepsis, acne, Sjogren's
CC disease or scleroderma. The antibodies may be used to purify, detect and
CC target the BGS-42 polypeptides. The present sequence is that of the
CC tubulin tyrosine ligase protein consensus sequence which was used in the
CC exemplification of the invention.
XX
SQ Sequence 541 AA;

Query Match 95.0%; Score 514; DB 8; Length 541;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 514; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MASSILKWVVSHQSCSRSSRSKPRDQREEAGSSDLSSRQDAENAEAKLRGLPGQLVDIAC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MASSILKWVVSHQSCSRSSRSKPRDQREEAGSSDLSSRQDAENAEAKLRGLPGQLVDIAC 60

Qy         61 KVCQAYLGQLEHEDIDTSADAVEDLTEAEWEDLTQQYYSLVHGDAFISNSRNYFSQCQAL 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 KVCQAYLGQLEHEDIDTSADAVEDLTEAEWEDLTQQYYSLVHGDAFISNSRNYFSQCQAL 120

Qy        121 LNRITSVNPQTDIDGLRNIWIIKPAAKSRGRDIVCMDRVEEILELAAADHPLSRDNKWVV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LNRITSVNPQTDIDGLRNIWIIKPAAKSRGRDIVCMDRVEEILELAAADHPLSRDNKWVV 180

Qy        181 QKYIETPLLICDTKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNN 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 QKYIETPLLICDTKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNN 240

Qy        241 AVQKYLKNDVGRSPLLPAHNMWTSTRFQEYLQRQGRGAVWGSVIYPSMKKAIAHAMKVAQ 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 AVQKYLKNDVGRSPLLPAHNMWTSTRFQEYLQRQGRGAVWGSVIYPSMKKAIAHAMKVAQ 300

Qy        301 DHVEPRKNSFELYGADFVLGRDFRPWLIEINSSPTMHPSTPVTAQLCAQVQEDTIKVAVD 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 DHVEPRKNSFELYGADFVLGRDFRPWLIEINSSPTMHPSTPVTAQLCAQVQEDTIKVAVD 360

Qy        361 RSCDIGNFELLWRQPVVEPPPFSGSDLCVAGVSVRRARRQVLPVCNLKASASLLDAQPLK 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 RSCDIGNFELLWRQPVVEPPPFSGSDLCVAGVSVRRARRQVLPVCNLKASASLLDAQPLK 420

Qy        421 ARGPSAMPDPAQGPPSPALQRDLGLKEEKGLPLALLAPLRGAAESGGAAQPTRTKAAGKV 480
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        421 ARGPSAMPDPAQGPPSPALQRDLGLKEEKGLPLALLAPLRGAAESGGAAQPTRTKAAGKV 480

Qy        481 ELPACPCRHVDSQAPNTGVPVAQPAKSWDPNQLN 514
              ||||||||||||||||||||||||||||||||||
Db        481 ELPACPCRHVDSQAPNTGVPVAQPAKSWDPNQLN 514
```

RESULT 3
ADJ93366
ID ADJ93366 standard; protein; 293 AA.
XX
AC ADJ93366;
XX
DT 06-MAY-2004 (first entry)
XX
DE Human BGS-42 protein-related TTL1 domain.
XX
KW testis-specific tubulin tyrosine-ligase-like polypeptide;
KW BGS-42 polypeptide; cytostatic; respiratory-Gen; gastrointestinal-Gen;
KW neuroprotective; endocrine-Gen; antiinflammatory; anabolic; hypertensive;
KW osteopathic; nootropic; antiparkinsonian; antiarthritic; antiasthmatic;
KW anti-HIV; antibacterial; immunosuppressive; antiseborrheic;
KW dermatological; tyrosine ligase modulator; gene therapy; tubulin ligase;
KW tubulin-carboxypeptidase; cellular proliferation; reproductive disorder;
KW testicular disorder; testicular cancer; pulmonary disorder; lung cancer;
KW gastrointestinal disorder; colon cancer; stomach cancer; neural disorder;
KW brain cancer; liver cancer; proliferative condition; testis; lung;
KW small intestine; brain; lymph tissue; infertility; Cushing's syndrome;
KW emphysema; pneumonia; Addison's disease; acromegaly; Alzheimer's disease;
KW Parkinson's disease; immunological disorder; arthritis; asthma; AIDS;
KW sepsis; acne; Sjogren's disease; scleroderma; human; TTL1 domain.
XX
OS Homo sapiens.
XX
PN WO2004005487-A2.
XX
PD 15-JAN-2004.
XX
PF 09-JUL-2003; 2003WO-US021605.
XX
PR 09-JUL-2002; 2002US-0394725P.
XX
PA (BRIM) BRISTOL-MYERS SQUIBB CO.
XX
PI Feder JN, Wu S, Nelson TC;
XX
DR WPI; 2004-099381/10.
XX
PT New testis-specific tubulin tyrosine-ligase-like BGS-42 polypeptide,
PT useful for preventing, treating or ameliorating a medical condition, e.g.
PT aberrant cellular proliferation, reproductive disorders or testicular
PT disorders.
XX
PS Disclosure; SEQ ID NO 14; 343pp; English.
XX
CC This invention relates to a novel testis-specific tubulin tyrosine-ligase
CC -like polypeptide, designated the BGS-42 polypeptide. The invention may
CC be useful for the development of compounds with a cytostatic, respiratory
CC -Gen, gastrointestinal-Gen, neuroprotective, endocrine-Gen,
CC antiinflammatory, anabolic, hypertensive, osteopathic, nootropic,
CC antiparkinsonian, antiarthritic, antiasthmatic, anti-HIV, antibacterial,
CC immunosuppressive, antiseborrheic or dermatological activity acting as
CC tyrosine ligase modulators. In addition, the disclosed sequences may be
CC useful for gene therapy. The BGS-42 polypeptide or polynucleotide can be
CC used for diagnosing a pathological condition or a susceptibility to a
CC pathological condition in a subject, and for preventing, treating or
CC ameliorating a medical condition, such as a disorder related to aberrant
CC tubulin ligase activity, a disorder related to aberrant tubulin-
CC carboxypeptidase activity, aberrant cellular proliferation, reproductive
CC disorders, testicular disorders, testicular cancer, pulmonary disorders,
CC lung cancer, gastrointestinal disorders, colon cancer, stomach cancer,
CC neural disorders, brain cancer, liver cancer, or proliferative condition
CC of the testis, lung, small intestine, brain or lymph tissue. The BGS-42
CC polypeptide, polynucleotide, or their modulators are also useful for
CC treating infertility, Cushing's syndrome, emphysema, pneumonia, Addison's
CC disease, acromegaly, Alzheimer's disease, or Parkinson's disease. The BGS
CC -42 polypeptide can be used as a preventive agent for immunological
CC disorders including arthritis, asthma, AIDS, sepsis, acne, Sjogren's
CC disease or scleroderma. The antibodies may be used to purify, detect and
CC target the BGS-42 polypeptides. The present sequence is that of the TTL1
CC domain of the human BGS-42 protein of the invention.
XX
SQ Sequence 293 AA;

Query Match 54.2%; Score 293; DB 8; Length 293;
Best Local Similarity 100.0%; Pred. No. 1.2e-307;
Matches 293; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy         73 EDIDTSADAVEDLTEAEWEDLTQQYYSLVHGDAFISNSRNYFSQCQALLNRITSVNPQTD 132
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 EDIDTSADAVEDLTEAEWEDLTQQYYSLVHGDAFISNSRNYFSQCQALLNRITSVNPQTD 60

Qy        133 IDGLRNIWIIKPAAKSRGRDIVCMDRVEEILELAAADHPLSRDNKWVVQKYIETPLLICD 192
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 IDGLRNIWIIKPAAKSRGRDIVCMDRVEEILELAAADHPLSRDNKWVVQKYIETPLLICD 120

Qy        193 TKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNNAVQKYLKNDVGR 252
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 TKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNNAVQKYLKNDVGR 180

Qy        253 SPLLPAHNMWTSTRFQEYLQRQGRGAVWGSVIYPSMKKAIAHAMKVAQDHVEPRKNSFEL 312
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
```

```
Db        181 SPLLPAHNMWTSTRFQEYLQRQGRGAVWGSVIYPSMKKAIAHAMKVAQDHVEPRKNSFEL 240

Qy        313 YGADFVLGRDFRPWLIEINSSPTMHPSTPVTAQLCAQVQEDTIKVAVDRSCDI 365
              ||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 YGADFVLGRDFRPWLIEINSSPTMHPSTPVTAQLCAQVQEDTIKVAVDRSCDI 293


RESULT 4
ADJ93360
ID   ADJ93360 standard; protein; 242 AA.
XX
AC   ADJ93360;
XX
DT   06-MAY-2004  (first entry)
XX
DE   Human BGS-42 protein sequence SeqID4.
XX
KW   testis-specific tubulin tyrosine-ligase-like polypeptide;
KW   BGS-42 polypeptide; cytostatic; respiratory-Gen; gastrointestinal-Gen;
KW   neuroprotective; endocrine-Gen; antiinflammatory; anabolic; hypertensive;
KW   osteopathic; nootropic; antiparkinsonian; antiarthritic; antiasthmatic;
KW   anti-HIV; antibacterial; immunosuppressive; antiseborrheic;
KW   dermatological; tyrosine ligase modulator; gene therapy; tubulin ligase;
KW   tubulin-carboxypeptidase; cellular proliferation; reproductive disorder;
KW   testicular disorder; testicular cancer; pulmonary disorder; lung cancer;
KW   gastrointestinal disorder; colon cancer; stomach cancer; neural disorder;
KW   brain cancer; liver cancer; proliferative condition; testis; lung;
KW   small intestine; brain; lymph tissue; infertility; Cushing's syndrome;
KW   emphysema; pneumonia; Addison's disease; acromegaly; Alzheimer's disease;
KW   Parkinson's disease; immunological disorder; arthritis; asthma; AIDS;
KW   sepsis; acne; Sjogren's disease; scleroderma; human.
XX
OS   Homo sapiens.
XX
PN   WO2004005487-A2.
XX
PD   15-JAN-2004.
XX
PF   09-JUL-2003; 2003WO-US021605.
XX
PR   09-JUL-2002; 2002US-0394725P.
XX
PA   (BRIM ) BRISTOL-MYERS SQUIBB CO.
XX
PI   Feder JN,  Wu S,  Nelson TC;
XX
DR   WPI; 2004-099381/10.
XX
PT   New testis-specific tubulin tyrosine-ligase-like BGS-42 polypeptide,
PT   useful for preventing, treating or ameliorating a medical condition, e.g.
PT   aberrant cellular proliferation, reproductive disorders or testicular
PT   disorders.
XX
PS   Disclosure; SEQ ID NO 4; 343pp; English.
XX
CC   This invention relates to a novel testis-specific tubulin tyrosine-ligase
CC   -like polypeptide, designated the BGS-42 polypeptide. The invention may
CC   be useful for the development of compounds with a cytostatic, respiratory
CC   -Gen, gastrointestinal-Gen, neuroprotective, endocrine-Gen,
CC   antiinflammatory, anabolic, hypertensive, osteopathic, nootropic,
CC   antiparkinsonian, antiarthritic, antiasthmatic, anti-HIV, antibacterial,
CC   immunosuppressive, antiseborrheic or dermatological activity acting as
CC   tyrosine ligase modulators. In addition, the disclosed sequences may be
CC   useful for gene therapy. The BGS-42 polypeptide or polynucleotide can be
CC   used for diagnosing a pathological condition or a susceptibility to a
CC   pathological condition in a subject, and for preventing, treating or
CC   ameliorating a medical condition, such as a disorder related to aberrant
CC   tubulin ligase activity, a disorder related to aberrant tubulin-
CC   carboxypeptidase activity, aberrant cellular proliferation, reproductive
CC   disorders, testicular disorders, testicular cancer, pulmonary disorders,
CC   lung cancer, gastrointestinal disorders, colon cancer, stomach cancer,
CC   neural disorders, brain cancer, liver cancer, or proliferative condition
CC   of the testis, lung, small intestine, brain or lymph tissue. The BGS-42
CC   polypeptide, polynucleotide, or their modulators are also useful for
CC   treating infertility, Cushing's syndrome, emphysema, pneumonia, Addison's
CC   disease, acromegaly, Alzheimer's disease, or Parkinson's disease. The BGS
CC   -42 polypeptide can be used as a preventive agent for immunological
CC   disorders including arthritis, asthma, AIDS, sepsis, acne, Sjogren's
CC   disease or scleroderma. The antibodies may be used to purify, detect and
CC   target the BGS-42 polypeptides. The present sequence is that of the human
CC   BGS-42 protein (partial sequence) of the invention.
XX
SQ   Sequence 242 AA;

  Query Match             44.7%;  Score 242;  DB 8;  Length 242;
  Best Local Similarity   100.0%;  Pred. No. 1.7e-252;
  Matches  242;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        133 IDGLRNIWIIKPAAKSRGRDIVCMDRVEEILELAAADHPLSRDNKWVVQKYIETPLLICD 192
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 IDGLRNIWIIKPAAKSRGRDIVCMDRVEEILELAAADHPLSRDNKWVVQKYIETPLLICD 60

Qy        193 TKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNNAVQKYLKNDVGR 252
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 TKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNNAVQKYLKNDVGR 120

Qy        253 SPLLPAHNMWTSTRFQEYLQRQGRGAVWGSVIYPSMKKAIAHAMKVAQDHVEPRKNSFEL 312
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 SPLLPAHNMWTSTRFQEYLQRQGRGAVWGSVIYPSMKKAIAHAMKVAQDHVEPRKNSFEL 180

Qy        313 YGADFVLGRDFRPWLIEINSSPTMHPSTPVTAQLCAQVQEDTIKVAVDRSCDIGNFELLW 372
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 YGADFVLGRDFRPWLIEINSSPTMHPSTPVTAQLCAQVQEDTIKVAVDRSCDIGNFELLW 240

Qy        373 RQ 374
              ||
Db        241 RQ 242


RESULT 5
ADU02747
ID   ADU02747 standard; protein; 402 AA.
XX
AC   ADU02747;
XX
DT   27-JAN-2005  (first entry)
XX
DE   Novel human polypeptide seqid 1214.
XX
KW   cytostatic; antipsoriatic; antiinflammatory; gene therapy; Nanodisc;
KW   proliferative disorder; inflammatory disorder; immune disorder;
KW   metabolic disorder; bone disorder; CNS disorder; cancer; psoriasis;
KW   ulcerative colitis; human.
XX
OS   Homo sapiens.
XX
PN   WO2004093804-A2.
XX
PD   04-NOV-2004.
XX
PF   19-APR-2004; 2004WO-US012047.
XX
PR   18-APR-2003; 2003US-0463708P.
PR   18-APR-2003; 2003US-0463732P.
PR   02-MAY-2003; 2003US-0467199P.
PR   02-MAY-2003; 2003US-0467230P.
PR   19-MAY-2003; 2003US-0471306P.
PR   19-MAY-2003; 2003US-0471336P.
PR   08-JUL-2003; 2003US-0485223P.
PR   08-JUL-2003; 2003US-0485224P.
PR   14-JUL-2003; 2003US-0486446P.
PR   14-JUL-2003; 2003US-0486480P.
PR   08-AUG-2003; 2003US-0493573P.
PR   08-AUG-2003; 2003US-0493577P.
PR   08-SEP-2003; 2003US-0505059P.
XX
```

PA (FIVE-) FIVE PRIME THERAPEUTICS INC.
XX
PI Lee E, Hestir K, Chu K, Masuoka L, Williams LT;
XX
DR WPI; 2004-775861/76.
DR N-PSDB; ADU02015.
XX
PT New first nucleic acid molecule comprising a polynucleotide sequence
PT given in the specification, useful in preparing a composition for
PT diagnosing or treating e.g., cancer, psoriasis or ulcerative colitis.
XX
PS Claim 14; SEQ ID NO 1214; 291pp; English.
XX
CC The invention describes a new first nucleic acid molecule comprising a
CC polynucleotide sequence given in the specification. Also described are:
CC an animal injected with the nucleic acid molecule; a second nucleic acid
CC molecule comprising a second polynucleotide sequence that is at least
CC about 70, 80, 90 or 95% homologous to the first nucleic acid molecule or
CC that hybridises to the first polynucleotide sequence under high
CC stringency conditions; a vector comprising the nucleic acid molecule and
CC a promoter that drives the expression of the nucleic acid molecule; a
CC host cell transformed, transfected, transduced or infected with the
CC nucleic acid molecule; a nucleic acid composition comprising a carrier or
CC a buffer and one or more compositions comprising the nucleic acid
CC molecule, vector or host cell; a substantially purified polypeptide; an
CC animal injected with the polypeptide; a polypeptide composition
CC comprising the polypeptide molecule and a carrier or buffer; a cell
CC culture medium comprising the polypeptide or transfected cells
CC transfected with the polynucleotide; making a transformed, transfected,
CC transduced, or infected host cell; synthesising Nanodiscs simultaneously
CC and for synthesising a series of simultaneously-synthesised Nanodiscs
CC sequentially utilising a dynamic system; preparing a hydrophobic protein
CC for determination of crystal structure; immunising a non-human animal;
CC screening for modulators of hydrophobic protein activity; a diagnostic
CC kit; determining the presence of the nucleic acid molecule or its
CC complement; determining the presence of an antibody to the polypeptide in
CC a sample; an antibody specifically recognising, binding to or modulating
CC the biological activity of at least one polypeptide encoded by a nucleic
CC acid molecule or its biologically active fragment; an antibody
CC composition comprising the antibody and a carrier; a bacteriophage, where
CC the antibody is displayed on the bacteriophage; a bacterial cell
CC comprising the bacteriophage; a non-human animal injected with the
CC antibody composition; a host cell that secretes the antibody; making an
CC antibody; diagnosing a disease, disorder, syndrome, or condition
CC comprising cancer, or proliferative, inflammatory, immune, metabolic,
CC bone, CNS, genetic, bacterial and viral diseases, disorders, syndromes or
CC conditions in a patient; a modulator composition comprising a modulator
CC and a carrier; gene therapy; prophylactic or therapeutic treatment of a
CC subject; an isolated modified cell comprising at least one first
CC heterologous nucleic acid molecule, where the first heterologous nucleic
CC acid molecule comprises a first polynucleotide sequence that encodes a
CC first polypeptide; a non-human animal deficient in the polypeptide or
CC that over-expresses the polypeptide; isolated tissues derived from the
CC non-human animal; and one or more cells derived from the non-human
CC animal. The nucleic acid is useful in preparing a composition for
CC diagnosing or treating e.g., cancer, psoriasis or ulcerative colitis.
CC This is the amino acid sequence of a novel human polypeptide of the
CC invention.
XX
SQ Sequence 402 AA;

Query Match 18.7%; Score 101; DB 8; Length 402;
Best Local Similarity 100.0%; Pred. No. 1.2e-99;
Matches 101; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MASSILKWVVSHQSCSRSSRSKPRDQREEAGSSDLSSRQDAENAEAKLRGLPGQLVDIAC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 MASSILKWVVSHQSCSRSSRSKPRDQREEAGSSDLSSRQDAENAEAKLRGLPGQLVDIAC 360

Qy         61 KVCQAYLGQLEHEDIDTSADAVEDLTEAEWEDLTQQYYSLV 101
              |||||||||||||||||||||||||||||||||||||||||
Db        361 KVCQAYLGQLEHEDIDTSADAVEDLTEAEWEDLTQQYYSLV 401
```

RESULT 6
ADJ93373
ID ADJ93373 standard; peptide; 49 AA.
XX
AC ADJ93373;
XX
DT 06-MAY-2004 (first entry)
XX
DE Human BGS-42 protein peptide fragment SeqID21.
XX
KW testis-specific tubulin tyrosine-ligase-like polypeptide;
KW BGS-42 polypeptide; cytostatic; respiratory-Gen; gastrointestinal-Gen;
KW neuroprotective; endocrine-Gen; antiinflammatory; anabolic; hypertensive;
KW osteopathic; nootropic; antiparkinsonian; antiarthritic; antiasthmatic;
KW anti-HIV; antibacterial; immunosuppressive; antiseborrheic;
KW dermatological; tyrosine ligase modulator; gene therapy; tubulin ligase;
KW tubulin-carboxypeptidase; cellular proliferation; reproductive disorder;
KW testicular disorder; testicular cancer; pulmonary disorder; lung cancer;
KW gastrointestinal disorder; colon cancer; stomach cancer; neural disorder;
KW brain cancer; liver cancer; proliferative condition; testis; lung;
KW small intestine; brain; lymph tissue; infertility; Cushing's syndrome;
KW emphysema; pneumonia; Addison's disease; acromegaly; Alzheimer's disease;
KW Parkinson's disease; immunological disorder; arthritis; asthma; AIDS;
KW sepsis; acne; Sjogren's disease; scleroderma; human.
XX
OS Homo sapiens.
XX
PN WO2004005487-A2.
XX
PD 15-JAN-2004.
XX
PF 09-JUL-2003; 2003WO-US021605.
XX
PR 09-JUL-2002; 2002US-0394725P.
XX
PA (BRIM) BRISTOL-MYERS SQUIBB CO.
XX
PI Feder JN, Wu S, Nelson TC;
XX
DR WPI; 2004-099381/10.
XX
PT New testis-specific tubulin tyrosine-ligase-like BGS-42 polypeptide,
PT useful for preventing, treating or ameliorating a medical condition, e.g.
PT aberrant cellular proliferation, reproductive disorders or testicular
PT disorders.
XX
PS Disclosure; SEQ ID NO 21; 343pp; English.
XX
CC This invention relates to a novel testis-specific tubulin tyrosine-ligase
CC -like polypeptide, designated the BGS-42 polypeptide. The invention may
CC be useful for the development of compounds with a cytostatic, respiratory
CC -Gen, gastrointestinal-Gen, neuroprotective, endocrine-Gen,
CC antiinflammatory, anabolic, hypertensive, osteopathic, nootropic,
CC antiparkinsonian, antiarthritic, antiasthmatic, anti-HIV, antibacterial,
CC immunosuppressive, antiseborrheic or dermatological activity acting as
CC tyrosine ligase modulators. In addition, the disclosed sequences may be
CC useful for gene therapy. The BGS-42 polypeptide or polynucleotide can be
CC used for diagnosing a pathological condition or a susceptibility to a
CC pathological condition in a subject, and for preventing, treating or
CC ameliorating a medical condition, such as a disorder related to aberrant
CC tubulin ligase activity, a disorder related to aberrant tubulin-
CC carboxypeptidase activity, aberrant cellular proliferation, reproductive
CC disorders, testicular disorders, testicular cancer, pulmonary disorders,
CC lung cancer, gastrointestinal disorders, colon cancer, stomach cancer,
CC neural disorders, brain cancer, liver cancer, or proliferative condition
CC of the testis, lung, small intestine, brain or lymph tissue. The BGS-42
CC polypeptide, polynucleotide, or their modulators are also useful for
CC treating infertility, Cushing's syndrome, emphysema, pneumonia, Addison's
CC disease, acromegaly, Alzheimer's disease, or Parkinson's disease. The BGS
CC -42 polypeptide can be used as a preventive agent for immunological
CC disorders including arthritis, asthma, AIDS, sepsis, acne, Sjogren's
CC disease or scleroderma. The antibodies may be used to purify, detect and

```
CC   target the BGS-42 polypeptides. The present sequence is that of a peptide
CC   fragment of the human BGS-42 protein of the invention.
XX
SQ   Sequence 49 AA;

  Query Match             9.1%;  Score 49;  DB 8;  Length 49;
  Best Local Similarity   100.0%;  Pred. No. 3.1e-44;
  Matches   49;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        192 DTKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNN 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 DTKFDIRQWFLVTDWNPLTIWFYKESYLRFSTQRFSLDKLDSAIHLCNN 49


RESULT 7
ADJ93376
ID   ADJ93376 standard; peptide; 42 AA.
XX
AC   ADJ93376;
XX
DT   06-MAY-2004  (first entry)
XX
DE   Human BGS-42 protein peptide fragment SeqID24.
XX
KW   testis-specific tubulin tyrosine-ligase-like polypeptide;
KW   BGS-42 polypeptide; cytostatic; respiratory-Gen; gastrointestinal-Gen;
KW   neuroprotective; endocrine-Gen; antiinflammatory; anabolic; hypertensive;
KW   osteopathic; nootropic; antiparkinsonian; antiarthritic; antiasthmatic;
KW   anti-HIV; antibacterial; immunosuppressive; antiseborrheic;
KW   dermatological; tyrosine ligase modulator; gene therapy; tubulin ligase;
KW   tubulin-carboxypeptidase; cellular proliferation; reproductive disorder;
KW   testicular disorder; testicular cancer; pulmonary disorder; lung cancer;
KW   gastrointestinal disorder; colon cancer; stomach cancer; neural disorder;
KW   brain cancer; liver cancer; proliferative condition; testis; lung;
KW   small intestine; brain; lymph tissue; infertility; Cushing's syndrome;
KW   emphysema; pneumonia; Addison's disease; acromegaly; Alzheimer's disease;
KW   Parkinson's disease; immunological disorder; arthritis; asthma; AIDS;
KW   sepsis; acne; Sjogren's disease; scleroderma; human.
XX
OS   Homo sapiens.
XX
PN   WO2004005487-A2.
XX
PD   15-JAN-2004.
XX
PF   09-JUL-2003; 2003WO-US021605.
XX
PR   09-JUL-2002; 2002US-0394725P.
XX
PA   (BRIM ) BRISTOL-MYERS SQUIBB CO.
XX
PI   Feder JN,  Wu S,  Nelson TC;
XX
DR   WPI; 2004-099381/10.
XX
PT   New testis-specific tubulin tyrosine-ligase-like BGS-42 polypeptide,
PT   useful for preventing, treating or ameliorating a medical condition, e.g.
PT   aberrant cellular proliferation, reproductive disorders or testicular
PT   disorders.
XX
PS   Disclosure; SEQ ID NO 24; 343pp; English.
XX
CC   This invention relates to a novel testis-specific tubulin tyrosine-ligase
CC   -like polypeptide, designated the BGS-42 polypeptide. The invention may
CC   be useful for the development of compounds with a cytostatic, respiratory
CC   -Gen, gastrointestinal-Gen, neuroprotective, endocrine-Gen,
CC   antiinflammatory, anabolic, hypertensive, osteopathic, nootropic,
CC   antiparkinsonian, antiarthritic, antiasthmatic, anti-HIV, antibacterial,
CC   immunosuppressive, antiseborrheic or dermatological activity acting as
CC   tyrosine ligase modulators. In addition, the disclosed sequences may be
CC   useful for gene therapy. The BGS-42 polypeptide or polynucleotide can be
CC   used for diagnosing a pathological condition or a susceptibility to a
CC   pathological condition in a subject, and for preventing, treating or
CC   ameliorating a medical condition, such as a disorder related to aberrant
CC   tubulin ligase activity, a disorder related to aberrant tubulin-
CC   carboxypeptidase activity, aberrant cellular proliferation, reproductive
CC   disorders, testicular disorders, testicular cancer, pulmonary disorders,
CC   lung cancer, gastrointestinal disorders, colon cancer, stomach cancer,
CC   neural disorders, brain cancer, liver cancer, or proliferative condition
CC   of the testis, lung, small intestine, brain or lymph tissue. The BGS-42
CC   polypeptide, polynucleotide, or their modulators are also useful for
CC   treating infertility, Cushing's syndrome, emphysema, pneumonia, Addison's
CC   disease, acromegaly, Alzheimer's disease, or Parkinson's disease. The BGS
CC   -42 polypeptide can be used as a preventive agent for immunological
CC   disorders including arthritis, asthma, AIDS, sepsis, acne, Sjogren's
CC   disease or scleroderma. The antibodies may be used to purify, detect and
CC   target the BGS-42 polypeptides. The present sequence is that of a peptide
CC   fragment of the human BGS-42 protein of the invention.
XX
SQ   Sequence 42 AA;

  Query Match             7.8%;  Score 42;  DB 8;  Length 42;
  Best Local Similarity   100.0%;  Pred. No. 1e-36;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        482 LPACPCRHVDSQAPNTGVPVAQPAKSWDPNQLNAHPLEPVLR 523
              |||||||||||||||||||||||||||||||||||||||||||
Db          1 LPACPCRHVDSQAPNTGVPVAQPAKSWDPNQLNAHPLEPVLR 42


RESULT 8
ADJ93452
ID   ADJ93452 standard; protein; 61 AA.
XX
AC   ADJ93452;
XX
DT   06-MAY-2004  (first entry)
XX
DE   Human BGS-42 protein-related protein sequence #103.
XX
KW   testis-specific tubulin tyrosine-ligase-like polypeptide;
KW   BGS-42 polypeptide; cytostatic; respiratory-Gen; gastrointestinal-Gen;
KW   neuroprotective; endocrine-Gen; antiinflammatory; anabolic; hypertensive;
KW   osteopathic; nootropic; antiparkinsonian; antiarthritic; antiasthmatic;
KW   anti-HIV; antibacterial; immunosuppressive; antiseborrheic;
KW   dermatological; tyrosine ligase modulator; gene therapy; tubulin ligase;
KW   tubulin-carboxypeptidase; cellular proliferation; reproductive disorder;
KW   testicular disorder; testicular cancer; pulmonary disorder; lung cancer;
KW   gastrointestinal disorder; colon cancer; stomach cancer; neural disorder;
KW   brain cancer; liver cancer; proliferative condition; testis; lung;
KW   small intestine; brain; lymph tissue; infertility; Cushing's syndrome;
KW   emphysema; pneumonia; Addison's disease; acromegaly; Alzheimer's disease;
KW   Parkinson's disease; immunological disorder; arthritis; asthma; AIDS;
KW   sepsis; acne; Sjogren's disease; scleroderma; human.
XX
OS   Homo sapiens.
XX
PN   WO2004005487-A2.
XX
PD   15-JAN-2004.
XX
PF   09-JUL-2003; 2003WO-US021605.
XX
PR   09-JUL-2002; 2002US-0394725P.
XX
PA   (BRIM ) BRISTOL-MYERS SQUIBB CO.
XX
PI   Feder JN,  Wu S,  Nelson TC;
XX
DR   WPI; 2004-099381/10.
XX
PT   New testis-specific tubulin tyrosine-ligase-like BGS-42 polypeptide,
PT   useful for preventing, treating or ameliorating a medical condition, e.g.
PT   aberrant cellular proliferation, reproductive disorders or testicular
PT   disorders.
XX
```

PS Disclosure; Fig 7B; 343pp; English.
XX
CC This invention relates to a novel testis-specific tubulin tyrosine-ligase
CC -like polypeptide, designated the BGS-42 polypeptide. The invention may
CC be useful for the development of compounds with a cytostatic, respiratory
CC -Gen, gastrointestinal-Gen, neuroprotective, endocrine-Gen,
CC antiinflammatory, anabolic, hypertensive, osteopathic, nootropic,
CC antiparkinsonian, antiarthritic, antiasthmatic, anti-HIV, antibacterial,
CC immunosuppressive, antiseborrheic or dermatological activity acting as
CC tyrosine ligase modulators. In addition, the disclosed sequences may be
CC useful for gene therapy. The BGS-42 polypeptide or polynucleotide can be
CC used for diagnosing a pathological condition or a susceptibility to a
CC pathological condition in a subject, and for preventing, treating or
CC ameliorating a medical condition, such as a disorder related to aberrant
CC tubulin ligase activity, a disorder related to aberrant tubulin-
CC carboxypeptidase activity, aberrant cellular proliferation, reproductive
CC disorders, testicular disorders, testicular cancer, pulmonary disorders,
CC lung cancer, gastrointestinal disorders, colon cancer, stomach cancer,
CC neural disorders, brain cancer, liver cancer, or proliferative condition
CC of the testis, lung, small intestine, brain or lymph tissue. The BGS-42
CC polypeptide, polynucleotide, or their modulators are also useful for
CC treating infertility, Cushing's syndrome, emphysema, pneumonia, Addison's
CC disease, acromegaly, Alzheimer's disease, or Parkinson's disease. The BGS
CC -42 polypeptide can be used as a preventive agent for immunological
CC disorders including arthritis, asthma, AIDS, sepsis, acne, Sjogren's
CC disease or scleroderma. The antibodies may be used to purify, detect and
CC target the BGS-42 polypeptides. The present sequence is that of a protein
CC related to the human BGS-42 protein of the invention.
XX
SQ Sequence 61 AA;

Query Match 7.2%; Score 39; DB 8; Length 61;
Best Local Similarity 100.0%; Pred. No. 2.6e-33;
Matches 39; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MASSILKWVVSHQSCSRSSRSKPRDQREEAGSSDLSSRQ 39
||||||||||||||||||||||||||||||||||||||||
Db 1 MASSILKWVVSHQSCSRSSRSKPRDQREEAGSSDLSSRQ 39

RESULT 9
ADJ93374
ID ADJ93374 standard; peptide; 26 AA.
XX
AC ADJ93374;
XX
DT 06-MAY-2004 (first entry)
XX
DE Human BGS-42 protein peptide fragment SeqID22.
XX
KW testis-specific tubulin tyrosine-ligase-like polypeptide;
KW BGS-42 polypeptide; cytostatic; respiratory-Gen; gastrointestinal-Gen;
KW neuroprotective; endocrine-Gen; antiinflammatory; anabolic; hypertensive;
KW osteopathic; nootropic; antiparkinsonian; antiarthritic; antiasthmatic;
KW anti-HIV; antibacterial; immunosuppressive; antiseborrheic;
KW dermatological; tyrosine ligase modulator; gene therapy; tubulin ligase;
KW tubulin-carboxypeptidase; cellular proliferation; reproductive disorder;
KW testicular disorder; testicular cancer; pulmonary disorder; lung cancer;
KW gastrointestinal disorder; colon cancer; stomach cancer; neural disorder;
KW brain cancer; liver cancer; proliferative condition; testis; lung;
KW small intestine; brain; lymph tissue; infertility; Cushing's syndrome;
KW emphysema; pneumonia; Addison's disease; acromegaly; Alzheimer's disease;
KW Parkinson's disease; immunological disorder; arthritis; asthma; AIDS;
KW sepsis; acne; Sjogren's disease; scleroderma; human.
XX
OS Homo sapiens.
XX
PN WO2004005487-A2.
XX
PD 15-JAN-2004.
XX
PF 09-JUL-2003; 2003WO-US021605.
XX
PR 09-JUL-2002; 2002US-0394725P.
XX
PA (BRIM) BRISTOL-MYERS SQUIBB CO.
XX
PI Feder JN, Wu S, Nelson TC;
XX
DR WPI; 2004-099381/10.
XX
PT New testis-specific tubulin tyrosine-ligase-like BGS-42 polypeptide,
PT useful for preventing, treating or ameliorating a medical condition, e.g.
PT aberrant cellular proliferation, reproductive disorders or testicular
PT disorders.
XX
PS Disclosure; SEQ ID NO 22; 343pp; English.
XX
CC This invention relates to a novel testis-specific tubulin tyrosine-ligase
CC -like polypeptide, designated the BGS-42 polypeptide. The invention may
CC be useful for the development of compounds with a cytostatic, respiratory
CC -Gen, gastrointestinal-Gen, neuroprotective, endocrine-Gen,
CC antiinflammatory, anabolic, hypertensive, osteopathic, nootropic,
CC antiparkinsonian, antiarthritic, antiasthmatic, anti-HIV, antibacterial,
CC immunosuppressive, antiseborrheic or dermatological activity acting as
CC tyrosine ligase modulators. In addition, the disclosed sequences may be
CC useful for gene therapy. The BGS-42 polypeptide or polynucleotide can be
CC used for diagnosing a pathological condition or a susceptibility to a
CC pathological condition in a subject, and for preventing, treating or
CC ameliorating a medical condition, such as a disorder related to aberrant
CC tubulin ligase activity, a disorder related to aberrant tubulin-
CC carboxypeptidase activity, aberrant cellular proliferation, reproductive
CC disorders, testicular disorders, testicular cancer, pulmonary disorders,
CC lung cancer, gastrointestinal disorders, colon cancer, stomach cancer,
CC neural disorders, brain cancer, liver cancer, or proliferative condition
CC of the testis, lung, small intestine, brain or lymph tissue. The BGS-42
CC polypeptide, polynucleotide, or their modulators are also useful for
CC treating infertility, Cushing's syndrome, emphysema, pneumonia, Addison's
CC disease, acromegaly, Alzheimer's disease, or Parkinson's disease. The BGS
CC -42 polypeptide can be used as a preventive agent for immunological
CC disorders including arthritis, asthma, AIDS, sepsis, acne, Sjogren's
CC disease or scleroderma. The antibodies may be used to purify, detect and
CC target the BGS-42 polypeptides. The present sequence is that of a peptide
CC fragment of the human BGS-42 protein of the invention.
XX
SQ Sequence 26 AA;

Query Match 4.8%; Score 26; DB 8; Length 26;
Best Local Similarity 100.0%; Pred. No. 1.4e-19;
Matches 26; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 332 SSPTMHPSTPVTAQLCAQVQEDTIKV 357
||||||||||||||||||||||||||
Db 1 SSPTMHPSTPVTAQLCAQVQEDTIKV 26

RESULT 10
ADJ93371
ID ADJ93371 standard; peptide; 23 AA.
XX
AC ADJ93371;
XX
DT 06-MAY-2004 (first entry)
XX
DE Human BGS-42 protein peptide fragment SeqID19.
XX
KW testis-specific tubulin tyrosine-ligase-like polypeptide;
KW BGS-42 polypeptide; cytostatic; respiratory-Gen; gastrointestinal-Gen;
KW neuroprotective; endocrine-Gen; antiinflammatory; anabolic; hypertensive;
KW osteopathic; nootropic; antiparkinsonian; antiarthritic; antiasthmatic;
KW anti-HIV; antibacterial; immunosuppressive; antiseborrheic;
KW dermatological; tyrosine ligase modulator; gene therapy; tubulin ligase;
KW tubulin-carboxypeptidase; cellular proliferation; reproductive disorder;
KW testicular disorder; testicular cancer; pulmonary disorder; lung cancer;
KW gastrointestinal disorder; colon cancer; stomach cancer; neural disorder;
KW brain cancer; liver cancer; proliferative condition; testis; lung;

KW small intestine; brain; lymph tissue; infertility; Cushing's syndrome;
KW emphysema; pneumonia; Addison's disease; acromegaly; Alzheimer's disease;
KW Parkinson's disease; immunological disorder; arthritis; asthma; AIDS;
KW sepsis; acne; Sjogren's disease; scleroderma; human.
XX
OS Homo sapiens.
XX
PN WO2004005487-A2.
XX
PD 15-JAN-2004.
XX
PF 09-JUL-2003; 2003WO-US021605.
XX
PR 09-JUL-2002; 2002US-0394725P.
XX
PA (BRIM) BRISTOL-MYERS SQUIBB CO.
XX
PI Feder JN, Wu S, Nelson TC;
XX
DR WPI; 2004-099381/10.
XX
PT New testis-specific tubulin tyrosine-ligase-like BGS-42 polypeptide,
PT useful for preventing, treating or ameliorating a medical condition, e.g.
PT aberrant cellular proliferation, reproductive disorders or testicular
PT disorders.
XX
PS Disclosure; SEQ ID NO 19; 343pp; English.
XX
CC This invention relates to a novel testis-specific tubulin tyrosine-ligase
CC -like polypeptide, designated the BGS-42 polypeptide. The invention may
CC be useful for the development of compounds with a cytostatic, respiratory
CC -Gen, gastrointestinal-Gen, neuroprotective, endocrine-Gen,
CC antiinflammatory, anabolic, hypertensive, osteopathic, nootropic,
CC antiparkinsonian, antiarthritic, antiasthmatic, anti-HIV, antibacterial,
CC immunosuppressive, antiseborrheic or dermatological activity acting as
CC tyrosine ligase modulators. In addition, the disclosed sequences may be
CC useful for gene therapy. The BGS-42 polypeptide or polynucleotide can be
CC used for diagnosing a pathological condition or a susceptibility to a
CC pathological condition in a subject, and for preventing, treating or
CC ameliorating a medical condition, such as a disorder related to aberrant
CC tubulin ligase activity, a disorder related to aberrant tubulin-
CC carboxypeptidase activity, aberrant cellular proliferation, reproductive
CC disorders, testicular disorders, testicular cancer, pulmonary disorders,
CC lung cancer, gastrointestinal disorders, colon cancer, stomach cancer,
CC neural disorders, brain cancer, liver cancer, or proliferative condition
CC of the testis, lung, small intestine, brain or lymph tissue. The BGS-42
CC polypeptide, polynucleotide, or their modulators are also useful for
CC treating infertility, Cushing's syndrome, emphysema, pneumonia, Addison's
CC disease, acromegaly, Alzheimer's disease, or Parkinson's disease. The BGS
CC -42 polypeptide can be used as a preventive agent for immunological
CC disorders including arthritis, asthma, AIDS, sepsis, acne, Sjogren's
CC disease or scleroderma. The antibodies may be used to purify, detect and
CC target the BGS-42 polypeptides. The present sequence is that of a peptide
CC fragment of the human BGS-42 protein of the invention.
XX
SQ Sequence 23 AA;

Query Match 4.3%; Score 23; DB 8; Length 23;
Best Local Similarity 100.0%; Pred. No. 2.1e-16;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 138 NIWIIKPAAKSRGRDIVCMDRVE 160
||||||||||||||||||||||||
Db 1 NIWIIKPAAKSRGRDIVCMDRVE 23

RESULT 11
ADJ93377
ID ADJ93377 standard; peptide; 17 AA.
XX
AC ADJ93377;
XX
DT 06-MAY-2004 (first entry)
XX
DE Human BGS-42 protein peptide fragment SeqID25.
XX
KW testis-specific tubulin tyrosine-ligase-like polypeptide;
KW BGS-42 polypeptide; cytostatic; respiratory-Gen; gastrointestinal-Gen;
KW neuroprotective; endocrine-Gen; antiinflammatory; anabolic; hypertensive;
KW osteopathic; nootropic; antiparkinsonian; antiarthritic; antiasthmatic;
KW anti-HIV; antibacterial; immunosuppressive; antiseborrheic;
KW dermatological; tyrosine ligase modulator; gene therapy; tubulin ligase;
KW tubulin-carboxypeptidase; cellular proliferation; reproductive disorder;
KW testicular disorder; testicular cancer; pulmonary disorder; lung cancer;
KW gastrointestinal disorder; colon cancer; stomach cancer; neural disorder;
KW brain cancer; liver cancer; proliferative condition; testis; lung;
KW small intestine; brain; lymph tissue; infertility; Cushing's syndrome;
KW emphysema; pneumonia; Addison's disease; acromegaly; Alzheimer's disease;
KW Parkinson's disease; immunological disorder; arthritis; asthma; AIDS;
KW sepsis; acne; Sjogren's disease; scleroderma; human.
XX
OS Homo sapiens.
XX
PN WO2004005487-A2.
XX
PD 15-JAN-2004.
XX
PF 09-JUL-2003; 2003WO-US021605.
XX
PR 09-JUL-2002; 2002US-0394725P.
XX
PA (BRIM) BRISTOL-MYERS SQUIBB CO.
XX
PI Feder JN, Wu S, Nelson TC;
XX
DR WPI; 2004-099381/10.
XX
PT New testis-specific tubulin tyrosine-ligase-like BGS-42 polypeptide,
PT useful for preventing, treating or ameliorating a medical condition, e.g.
PT aberrant cellular proliferation, reproductive disorders or testicular
PT disorders.
XX
PS Disclosure; SEQ ID NO 25; 343pp; English.
XX
CC This invention relates to a novel testis-specific tubulin tyrosine-ligase
CC -like polypeptide, designated the BGS-42 polypeptide. The invention may
CC be useful for the development of compounds with a cytostatic, respiratory
CC -Gen, gastrointestinal-Gen, neuroprotective, endocrine-Gen,
CC antiinflammatory, anabolic, hypertensive, osteopathic, nootropic,
CC antiparkinsonian, antiarthritic, antiasthmatic, anti-HIV, antibacterial,
CC immunosuppressive, antiseborrheic or dermatological activity acting as
CC tyrosine ligase modulators. In addition, the disclosed sequences may be
CC useful for gene therapy. The BGS-42 polypeptide or polynucleotide can be
CC used for diagnosing a pathological condition or a susceptibility to a
CC pathological condition in a subject, and for preventing, treating or
CC ameliorating a medical condition, such as a disorder related to aberrant
CC tubulin ligase activity, a disorder related to aberrant tubulin-
CC carboxypeptidase activity, aberrant cellular proliferation, reproductive
CC disorders, testicular disorders, testicular cancer, pulmonary disorders,
CC lung cancer, gastrointestinal disorders, colon cancer, stomach cancer,
CC neural disorders, brain cancer, liver cancer, or proliferative condition
CC of the testis, lung, small intestine, brain or lymph tissue. The BGS-42
CC polypeptide, polynucleotide, or their modulators are also useful for
CC treating infertility, Cushing's syndrome, emphysema, pneumonia, Addison's
CC disease, acromegaly, Alzheimer's disease, or Parkinson's disease. The BGS
CC -42 polypeptide can be used as a preventive agent for immunological
CC disorders including arthritis, asthma, AIDS, sepsis, acne, Sjogren's
CC disease or scleroderma. The antibodies may be used to purify, detect and
CC target the BGS-42 polypeptides. The present sequence is that of a peptide
CC fragment of the human BGS-42 protein of the invention.
XX
SQ Sequence 17 AA;

Query Match 3.1%; Score 17; DB 8; Length 17;
Best Local Similarity 100.0%; Pred. No. 5e-10;
Matches 17; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy        525 LKTAEGALRPPPGGKGS 541
              |||||||||||||||||
Db          1 LKTAEGALRPPPGGKGS 17
```

RESULT 12
ADJ93397
ID ADJ93397 standard; peptide; 16 AA.
XX
AC ADJ93397;
XX
DT 06-MAY-2004 (first entry)
XX
DE Human BGS-42 protein-related N-myristoylation peptide SeqID47.
XX
KW testis-specific tubulin tyrosine-ligase-like polypeptide;
KW BGS-42 polypeptide; cytostatic; respiratory-Gen; gastrointestinal-Gen;
KW neuroprotective; endocrine-Gen; antiinflammatory; anabolic; hypertensive;
KW osteopathic; nootropic; antiparkinsonian; antiarthritic; antiasthmatic;
KW anti-HIV; antibacterial; immunosuppressive; antiseborrheic;
KW dermatological; tyrosine ligase modulator; gene therapy; tubulin ligase;
KW tubulin-carboxypeptidase; cellular proliferation; reproductive disorder;
KW testicular disorder; testicular cancer; pulmonary disorder; lung cancer;
KW gastrointestinal disorder; colon cancer; stomach cancer; neural disorder;
KW brain cancer; liver cancer; proliferative condition; testis; lung;
KW small intestine; brain; lymph tissue; infertility; Cushing's syndrome;
KW emphysema; pneumonia; Addison's disease; acromegaly; Alzheimer's disease;
KW Parkinson's disease; immunological disorder; arthritis; asthma; AIDS;
KW sepsis; acne; Sjogren's disease; scleroderma; human; N-myristoylation.
XX
OS Homo sapiens.
XX
PN WO2004005487-A2.
XX
PD 15-JAN-2004.
XX
PF 09-JUL-2003; 2003WO-US021605.
XX
PR 09-JUL-2002; 2002US-0394725P.
XX
PA (BRIM) BRISTOL-MYERS SQUIBB CO.
XX
PI Feder JN, Wu S, Nelson TC;
XX
DR WPI; 2004-099381/10.
XX
PT New testis-specific tubulin tyrosine-ligase-like BGS-42 polypeptide,
PT useful for preventing, treating or ameliorating a medical condition, e.g.
PT aberrant cellular proliferation, reproductive disorders or testicular
PT disorders.
XX
PS Disclosure; SEQ ID NO 47; 343pp; English.
XX
CC This invention relates to a novel testis-specific tubulin tyrosine-ligase
CC -like polypeptide, designated the BGS-42 polypeptide. The invention may
CC be useful for the development of compounds with a cytostatic, respiratory
CC -Gen, gastrointestinal-Gen, neuroprotective, endocrine-Gen,
CC antiinflammatory, anabolic, hypertensive, osteopathic, nootropic,
CC antiparkinsonian, antiarthritic, antiasthmatic, anti-HIV, antibacterial,
CC immunosuppressive, antiseborrheic or dermatological activity acting as
CC tyrosine ligase modulators. In addition, the disclosed sequences may be
CC useful for gene therapy. The BGS-42 polypeptide or polynucleotide can be
CC used for diagnosing a pathological condition or a susceptibility to a
CC pathological condition in a subject, and for preventing, treating or
CC ameliorating a medical condition, such as a disorder related to aberrant
CC tubulin ligase activity, a disorder related to aberrant tubulin-
CC carboxypeptidase activity, aberrant cellular proliferation, reproductive
CC disorders, testicular disorders, testicular cancer, pulmonary disorders,
CC lung cancer, gastrointestinal disorders, colon cancer, stomach cancer,
CC neural disorders, brain cancer, liver cancer, or proliferative condition
CC of the testis, lung, small intestine, brain or lymph tissue. The BGS-42
CC polypeptide, polynucleotide, or their modulators are also useful for
CC treating infertility, Cushing's syndrome, emphysema, pneumonia, Addison's
CC disease, acromegaly, Alzheimer's disease, or Parkinson's disease. The BGS
CC -42 polypeptide can be used as a preventive agent for immunological
CC disorders including arthritis, asthma, AIDS, sepsis, acne, Sjogren's
CC disease or scleroderma. The antibodies may be used to purify, detect and
CC target the BGS-42 polypeptides. The present sequence is that of a peptide
CC which represents a site of N-myristoylation in the human BGS-42 protein
CC of the invention.
XX
SQ Sequence 16 AA;

```
  Query Match             3.0%;  Score 16;  DB 8;  Length 16;
  Best Local Similarity   100.0%;  Pred. No. 5.8e-09;
  Matches   16;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        379 PPPFSGSDLCVAGVSV 394
              ||||||||||||||||
Db          1 PPPFSGSDLCVAGVSV 16
```

RESULT 13
ADJ93398
ID ADJ93398 standard; peptide; 16 AA.
XX
AC ADJ93398;
XX
DT 06-MAY-2004 (first entry)
XX
DE Human BGS-42 protein-related N-myristoylation peptide SeqID48.
XX
KW testis-specific tubulin tyrosine-ligase-like polypeptide;
KW BGS-42 polypeptide; cytostatic; respiratory-Gen; gastrointestinal-Gen;
KW neuroprotective; endocrine-Gen; antiinflammatory; anabolic; hypertensive;
KW osteopathic; nootropic; antiparkinsonian; antiarthritic; antiasthmatic;
KW anti-HIV; antibacterial; immunosuppressive; antiseborrheic;
KW dermatological; tyrosine ligase modulator; gene therapy; tubulin ligase;
KW tubulin-carboxypeptidase; cellular proliferation; reproductive disorder;
KW testicular disorder; testicular cancer; pulmonary disorder; lung cancer;
KW gastrointestinal disorder; colon cancer; stomach cancer; neural disorder;
KW brain cancer; liver cancer; proliferative condition; testis; lung;
KW small intestine; brain; lymph tissue; infertility; Cushing's syndrome;
KW emphysema; pneumonia; Addison's disease; acromegaly; Alzheimer's disease;
KW Parkinson's disease; immunological disorder; arthritis; asthma; AIDS;
KW sepsis; acne; Sjogren's disease; scleroderma; human; N-myristoylation.
XX
OS Homo sapiens.
XX
PN WO2004005487-A2.
XX
PD 15-JAN-2004.
XX
PF 09-JUL-2003; 2003WO-US021605.
XX
PR 09-JUL-2002; 2002US-0394725P.
XX
PA (BRIM) BRISTOL-MYERS SQUIBB CO.
XX
PI Feder JN, Wu S, Nelson TC;
XX
DR WPI; 2004-099381/10.
XX
PT New testis-specific tubulin tyrosine-ligase-like BGS-42 polypeptide,
PT useful for preventing, treating or ameliorating a medical condition, e.g.
PT aberrant cellular proliferation, reproductive disorders or testicular
PT disorders.
XX
PS Disclosure; SEQ ID NO 48; 343pp; English.
XX
CC This invention relates to a novel testis-specific tubulin tyrosine-ligase
CC -like polypeptide, designated the BGS-42 polypeptide. The invention may
CC be useful for the development of compounds with a cytostatic, respiratory
CC -Gen, gastrointestinal-Gen, neuroprotective, endocrine-Gen,
CC antiinflammatory, anabolic, hypertensive, osteopathic, nootropic,

CC antiparkinsonian, antiarthritic, antiasthmatic, anti-HIV, antibacterial,
CC immunosuppressive, antiseborrheic or dermatological activity acting as
CC tyrosine ligase modulators. In addition, the disclosed sequences may be
CC useful for gene therapy. The BGS-42 polypeptide or polynucleotide can be
CC used for diagnosing a pathological condition or a susceptibility to a
CC pathological condition in a subject, and for preventing, treating or
CC ameliorating a medical condition, such as a disorder related to aberrant
CC tubulin ligase activity, a disorder related to aberrant tubulin-
CC carboxypeptidase activity, aberrant cellular proliferation, reproductive
CC disorders, testicular disorders, testicular cancer, pulmonary disorders,
CC lung cancer, gastrointestinal disorders, colon cancer, stomach cancer,
CC neural disorders, brain cancer, liver cancer, or proliferative condition
CC of the testis, lung, small intestine, brain or lymph tissue. The BGS-42
CC polypeptide, polynucleotide, or their modulators are also useful for
CC treating infertility, Cushing's syndrome, emphysema, pneumonia, Addison's
CC disease, acromegaly, Alzheimer's disease, or Parkinson's disease. The BGS
CC -42 polypeptide can be used as a preventive agent for immunological
CC disorders including arthritis, asthma, AIDS, sepsis, acne, Sjogren's
CC disease or scleroderma. The antibodies may be used to purify, detect and
CC target the BGS-42 polypeptides. The present sequence is that of a peptide
CC which represents a site of N-myristoylation in the human BGS-42 protein
CC of the invention.
XX
SQ Sequence 16 AA;

Query Match 3.0%; Score 16; DB 8; Length 16;
Best Local Similarity 100.0%; Pred. No. 5.8e-09;
Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 445 LKEEKGLPLALLAPLR 460
||||||||||||||||
Db 1 LKEEKGLPLALLAPLR 16

RESULT 14
ADJ93401
ID ADJ93401 standard; peptide; 16 AA.
XX
AC ADJ93401;
XX
DT 06-MAY-2004 (first entry)
XX
DE Human BGS-42 protein-related N-myristoylation peptide SeqID51.
XX
KW testis-specific tubulin tyrosine-ligase-like polypeptide;
KW BGS-42 polypeptide; cytostatic; respiratory-Gen; gastrointestinal-Gen;
KW neuroprotective; endocrine-Gen; antiinflammatory; anabolic; hypertensive;
KW osteopathic; nootropic; antiparkinsonian; antiarthritic; antiasthmatic;
KW anti-HIV; antibacterial; immunosuppressive; antiseborrheic;
KW dermatological; tyrosine ligase modulator; gene therapy; tubulin ligase;
KW tubulin-carboxypeptidase; cellular proliferation; reproductive disorder;
KW testicular disorder; testicular cancer; pulmonary disorder; lung cancer;
KW gastrointestinal disorder; colon cancer; stomach cancer; neural disorder;
KW brain cancer; liver cancer; proliferative condition; testis; lung;
KW small intestine; brain; lymph tissue; infertility; Cushing's syndrome;
KW emphysema; pneumonia; Addison's disease; acromegaly; Alzheimer's disease;
KW Parkinson's disease; immunological disorder; arthritis; asthma; AIDS;
KW sepsis; acne; Sjogren's disease; scleroderma; human; N-myristoylation.
XX
OS Homo sapiens.
XX
PN WO2004005487-A2.
XX
PD 15-JAN-2004.
XX
PF 09-JUL-2003; 2003WO-US021605.
XX
PR 09-JUL-2002; 2002US-0394725P.
XX
PA (BRIM) BRISTOL-MYERS SQUIBB CO.
XX
PI Feder JN, Wu S, Nelson TC;
XX
DR WPI; 2004-099381/10.
XX
PT New testis-specific tubulin tyrosine-ligase-like BGS-42 polypeptide,
PT useful for preventing, treating or ameliorating a medical condition, e.g.
PT aberrant cellular proliferation, reproductive disorders or testicular
PT disorders.
XX
PS Disclosure; SEQ ID NO 51; 343pp; English.
XX
CC This invention relates to a novel testis-specific tubulin tyrosine-ligase
CC -like polypeptide, designated the BGS-42 polypeptide. The invention may
CC be useful for the development of compounds with a cytostatic, respiratory
CC -Gen, gastrointestinal-Gen, neuroprotective, endocrine-Gen,
CC antiinflammatory, anabolic, hypertensive, osteopathic, nootropic,
CC antiparkinsonian, antiarthritic, antiasthmatic, anti-HIV, antibacterial,
CC immunosuppressive, antiseborrheic or dermatological activity acting as
CC tyrosine ligase modulators. In addition, the disclosed sequences may be
CC useful for gene therapy. The BGS-42 polypeptide or polynucleotide can be
CC used for diagnosing a pathological condition or a susceptibility to a
CC pathological condition in a subject, and for preventing, treating or
CC ameliorating a medical condition, such as a disorder related to aberrant
CC tubulin ligase activity, a disorder related to aberrant tubulin-
CC carboxypeptidase activity, aberrant cellular proliferation, reproductive
CC disorders, testicular disorders, testicular cancer, pulmonary disorders,
CC lung cancer, gastrointestinal disorders, colon cancer, stomach cancer,
CC neural disorders, brain cancer, liver cancer, or proliferative condition
CC of the testis, lung, small intestine, brain or lymph tissue. The BGS-42
CC polypeptide, polynucleotide, or their modulators are also useful for
CC treating infertility, Cushing's syndrome, emphysema, pneumonia, Addison's
CC disease, acromegaly, Alzheimer's disease, or Parkinson's disease. The BGS
CC -42 polypeptide can be used as a preventive agent for immunological
CC disorders including arthritis, asthma, AIDS, sepsis, acne, Sjogren's
CC disease or scleroderma. The antibodies may be used to purify, detect and
CC target the BGS-42 polypeptides. The present sequence is that of a peptide
CC which represents a site of N-myristoylation in the human BGS-42 protein
CC of the invention.
XX
SQ Sequence 16 AA;

Query Match 3.0%; Score 16; DB 8; Length 16;
Best Local Similarity 100.0%; Pred. No. 5.8e-09;
Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 519 EPVLRGLKTAEGALRP 534
||||||||||||||||
Db 1 EPVLRGLKTAEGALRP 16

RESULT 15
ADJ93396
ID ADJ93396 standard; peptide; 16 AA.
XX
AC ADJ93396;
XX
DT 06-MAY-2004 (first entry)
XX
DE Human BGS-42 protein-related N-myristoylation peptide SeqID46.
XX
KW testis-specific tubulin tyrosine-ligase-like polypeptide;
KW BGS-42 polypeptide; cytostatic; respiratory-Gen; gastrointestinal-Gen;
KW neuroprotective; endocrine-Gen; antiinflammatory; anabolic; hypertensive;
KW osteopathic; nootropic; antiparkinsonian; antiarthritic; antiasthmatic;
KW anti-HIV; antibacterial; immunosuppressive; antiseborrheic;
KW dermatological; tyrosine ligase modulator; gene therapy; tubulin ligase;
KW tubulin-carboxypeptidase; cellular proliferation; reproductive disorder;
KW testicular disorder; testicular cancer; pulmonary disorder; lung cancer;
KW gastrointestinal disorder; colon cancer; stomach cancer; neural disorder;
KW brain cancer; liver cancer; proliferative condition; testis; lung;
KW small intestine; brain; lymph tissue; infertility; Cushing's syndrome;
KW emphysema; pneumonia; Addison's disease; acromegaly; Alzheimer's disease;
KW Parkinson's disease; immunological disorder; arthritis; asthma; AIDS;
KW sepsis; acne; Sjogren's disease; scleroderma; human; N-myristoylation.
XX

OS Homo sapiens.
XX
PN WO2004005487-A2.
XX
PD 15-JAN-2004.
XX
PF 09-JUL-2003; 2003WO-US021605.
XX
PR 09-JUL-2002; 2002US-0394725P.
XX
PA (BRIM) BRISTOL-MYERS SQUIBB CO.
XX
PI Feder JN, Wu S, Nelson TC;
XX
DR WPI; 2004-099381/10.
XX
PT New testis-specific tubulin tyrosine-ligase-like BGS-42 polypeptide,
PT useful for preventing, treating or ameliorating a medical condition, e.g.
PT aberrant cellular proliferation, reproductive disorders or testicular
PT disorders.
XX
PS Disclosure; SEQ ID NO 46; 343pp; English.
XX
CC This invention relates to a novel testis-specific tubulin tyrosine-ligase
CC -like polypeptide, designated the BGS-42 polypeptide. The invention may
CC be useful for the development of compounds with a cytostatic, respiratory
CC -Gen, gastrointestinal-Gen, neuroprotective, endocrine-Gen,
CC antiinflammatory, anabolic, hypertensive, osteopathic, nootropic,
CC antiparkinsonian, antiarthritic, antiasthmatic, anti-HIV, antibacterial,
CC immunosuppressive, antiseborrheic or dermatological activity acting as
CC tyrosine ligase modulators. In addition, the disclosed sequences may be
CC useful for gene therapy. The BGS-42 polypeptide or polynucleotide can be
CC used for diagnosing a pathological condition or a susceptibility to a
CC pathological condition in a subject, and for preventing, treating or
CC ameliorating a medical condition, such as a disorder related to aberrant
CC tubulin ligase activity, a disorder related to aberrant tubulin-
CC carboxypeptidase activity, aberrant cellular proliferation, reproductive
CC disorders, testicular disorders, testicular cancer, pulmonary disorders,
CC lung cancer, gastrointestinal disorders, colon cancer, stomach cancer,
CC neural disorders, brain cancer, liver cancer, or proliferative condition
CC of the testis, lung, small intestine, brain or lymph tissue. The BGS-42
CC polypeptide, polynucleotide, or their modulators are also useful for
CC treating infertility, Cushing's syndrome, emphysema, pneumonia, Addison's
CC disease, acromegaly, Alzheimer's disease, or Parkinson's disease. The BGS
CC -42 polypeptide can be used as a preventive agent for immunological
CC disorders including arthritis, asthma, AIDS, sepsis, acne, Sjogren's
CC disease or scleroderma. The antibodies may be used to purify, detect and
CC target the BGS-42 polypeptides. The present sequence is that of a peptide
CC which represents a site of N-myristoylation in the human BGS-42 protein
CC of the invention.
XX
SQ Sequence 16 AA;

Query Match 3.0%; Score 16; DB 8; Length 16;
Best Local Similarity 100.0%; Pred. No. 5.8e-09;
Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy        272 QRQGRGAVWGSVIYPS 287
              ||||||||||||||||
Db          1 QRQGRGAVWGSVIYPS 16
```

Search completed: May 15, 2006, 09:57:38
Job time : 63 secs